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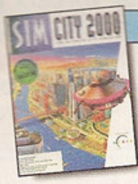


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Month in View

Chairman Vost presides over his adoring masses once more…



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WORLD OF AMIGA SHOW REPORT
As you might imagine – a lot went on at this year's World of Amiga show in Kensington.



Ben Vost
Editor

All hail the Amiga public! We have all come here in this four week period to celebrate the fact that your glorious leader ascended to godhood with the AAA award this issue. He truly is… oh hang on a mo, I can't do this. It was very nice, and a great surprise to me winning this AAA award, but it's kind of irrelevant when it comes to producing the magazine. Sure, it's nice now to have a set of Nubian slaves waiting on my every whim, but like the lottery millionaires, I won't let it change my life.

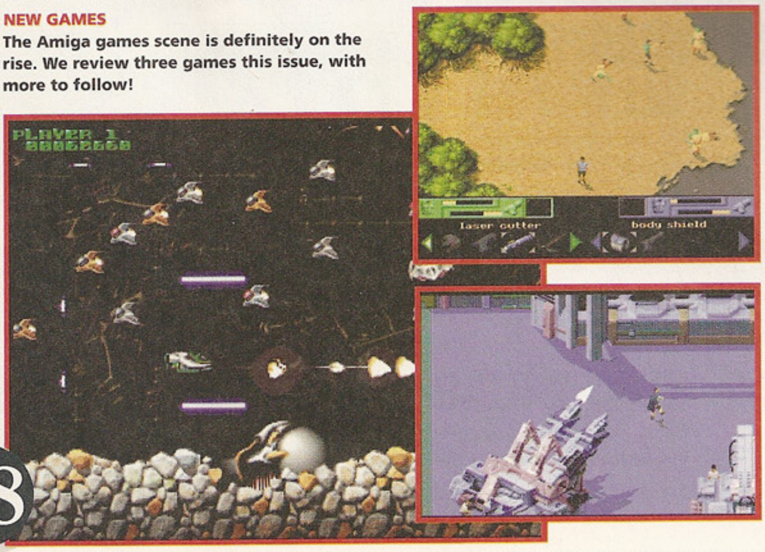
It wasn't even the best thing for me at the show. The best thing is always (and has always been) talking to people, not just the dealers and developers, but also the users (and especially their girlfriends) and all the people that actually make the show happen. This year was especially groovy since I got to speak to usergroups and their members, and put a few faces to the names on the afb.

The other big news is that because of changes to the mag that mean you'll get an extra seven pages of class editorial content, this is the last Month in View page we'll have. To make sure you get as much info as possible out of every issue of *AF*, we're getting rid of some of the regular pages in the magazine to enable us to put more good stuff in. The issue size isn't increasing, unfortunately, but the number of pages of reviews, features and tutorials is.

That aside, we've got a cracking issue for you this time, with a huge guide to the World of Amiga show (and accompanying MPEG audio on the CD). A couple of the reviews we had planned for this ish have had to be held back (like *Tornado 3D* – again), but even so there should be enough to satisfy the biggest hunger.

Lastly, we've responded to the many requests we get for tutorials for the complete beginner. We hope that these four page one-offs will help people who are struggling to get to grips with all things Amiga, but please give us some feedback on how they can be improved. Th-th-that's all folks!

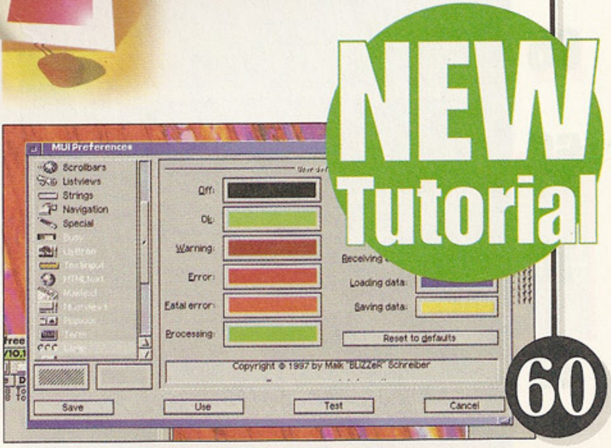
NEW GAMES
The Amiga games scene is definitely on the rise. We review three games this issue, with more to follow!



28



BEGINNERS GUIDE TO...THE *AFCD*
Get to grips with our CD and make it work for you as nicely as it does for us!



60

AMIGA FORMAT Contents

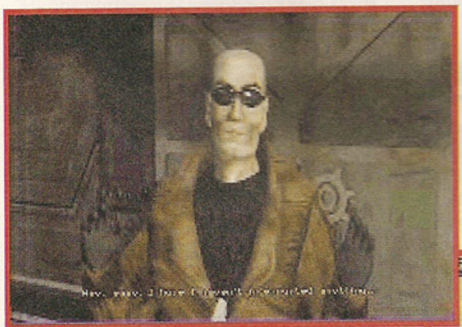
ISSUE 128 **OCTOBER 1999**

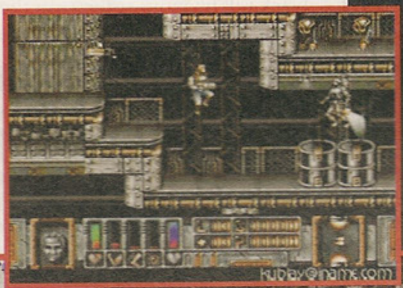
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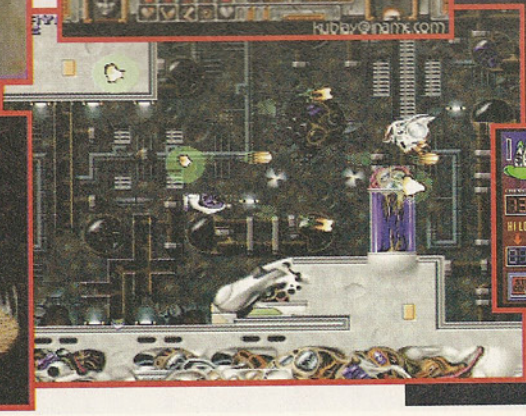


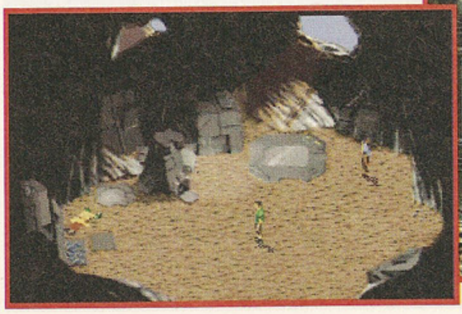
p14

Did Amiga give us the low-down on the NG machines? Did usergroups lower the tone? What was on sale? Is Jim Collas the new messiah? How long is a piece of string? Find out the answers to all these questions in our huge feature on WoA. Apart from the one about the string. The answer is twice as long as half its length, by the way.





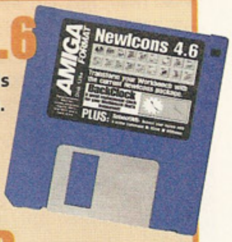


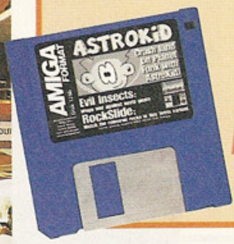


AF CD-ROMS



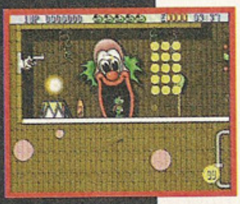
AF COVERDISKS





AF SCREENPLAY





Look at all these great games. Screenplay is positively bursting at the seams for this issue.



WHAT'S UP?

MCC details emerge
Find out what Amiga's first machine to be released will consist of.

New office suite
Epic Marketing announce *Platinum Suite 2000*

phase5 and QNX deal
QNX for classic Amiga?

WORLD NEWS

MCC details emerge

Amiga have released a so-called Technology Brief detailing the new Amiga Operating Environment (AmigaOE) and specifications for the first next generation Amiga computer.

This Technology Brief states the Amiga vision and mission: 'to make computers and the Internet a natural part of everyday life'. It continues, 'we are defining a new distributed home computing environment that enables a user experience that is much more accessible than today's personal computer experience.' A bold aim, indeed.

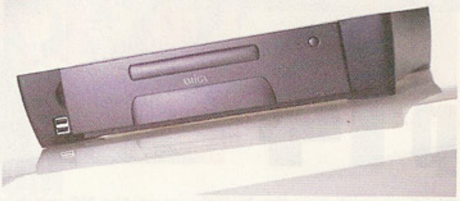
> "The first new Amiga device will be called the Amiga Multimedia Convergence Computer or MCC"

THE MCC

The first new Amiga device will be called the Amiga Multimedia Convergence Computer or MCC. The more alert readers will note that MCC is equal to 1200 in Roman numerals, which may give you some sort of guide as to the target market for this machine. The MCC will ship in two forms: as an integrated box and as an ATX form factor motherboard. This latter will be be available for users and OEMs to house in industry standard cases and provide custom solutions for which the former is too restrictive.

In issue 126 of *AF* we published a number of Pentagram's sketches of possible AmigaNG case designs. However, the design that Amiga have selected for the integrated system is none of these. A mock-up of this case was on display at this year's World of Amiga show and got a decidedly mixed reaction from show attendees. The design opted for consists of a VCR-sized base unit and a matching 15" monitor. The colour of the device again points at the target audience for this machine: black will be more at home in the living room with existing audio and video equipment, rather than the traditional cream or beige.





The new Amiga MCC will look right at home sitting next to your hifi or video recorder.

As you can see from the specifications (see boxout), the CPU that will power the new MCC has not yet been revealed. Possible contenders are MIPS, PowerPC, Transmeta and Sun's new MAJC. Of these, PowerPC is perhaps the least likely due to its expensive silicon. The smart money is on Transmeta's secret superchip, but Sun's new chip looks interesting too. The problem with relying on the

WHO OR WHAT IS TRANSMETA?

Transmeta are a Silicon Valley startup veiled in secrecy. Thanks to a carefully constructed shroud of mystery surrounding the company, surprisingly few facts are known about them. When queried as to what they are up to the response is an inevitable 'cool stuff with computers'.

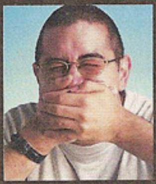
Transmeta was founded by David Ditzel, an ex-employee of Sun Microsystems and one of the designers of the SPARC, an early RISC processor. Transmeta was partly funded by Paul Allen, the co-founder of Microsoft. Until recently, Transmeta was listed on his website as a creator of VLSI engines. Not very helpful. Among Transmeta's list of highly talented employees is Linus Torvalds, geek god and creator of the Linux operating system.

Rumours, the enigmatic patents that Transmeta have filed, and some leaps of logic lead to the conclusion that Transmeta are working on a VLIW (Very Long Instruction Word) processor. This is not in itself revolutionary: other VLIW projects exist, such as Intel's IA-64 and the Russian Elbrus. What is interesting about Transmeta is that they are apparently working on some kind of code-morphing technology. The Transmeta chip can dynamically change its instruction set. The upshot is that their CPU should be able to execute x86 instructions and Java bytecode with equal facility. Because of the simplicity of its VLIW design, this chip should require a quarter the silicon of a Pentium II and should thus be a very low cost solution.

Transmeta has long been rumoured as a possible technology for a next generation Amiga. Amiga themselves are being particularly coy, hinting at Transmeta as a hardware partner, but not actually admitting anything explicitly. If there is a connection between Transmeta and Amiga, you can bet that Amiga won't be allowed to announce anything until Transmeta are good and ready.

Talking heads

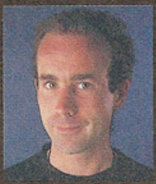
What have the Amiga Format staff been doing this month?



Ben Vost
Editor
A busy issue indeed. Not only did we have the show to contend with, but all sorts of other stuff too. Book of the year so far: The Surgeon of Crowthorne, by Simon Winchester. Absolutely brill!



Richard Drummond
Staff Writer
Busy? That Vost chap doesn't know the meaning of the word. Ill health, moving house (again), the show and I still found time to count the grains of sand on Weston beach.



Paul Cavanagh
Prod. Editor
I've been hanging out with hippies and druids in some of Wiltshire's finest stone circles. And trying to make a good impression with my first issue of *AF* of course.



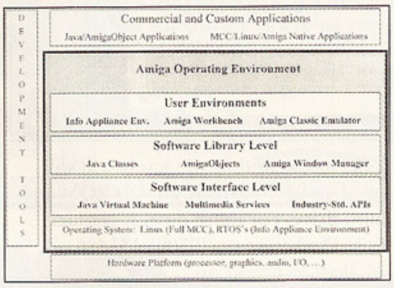
Colin Nightingale
Art Editor
I've been up to no good again, meddling with the occult and conjuring up spirits which if my incantations are correct you will witness as your sun being devoured by my demons on 11th August

Transmeta chip – as far as the industry is concerned – is that it is an unknown and untested factor. There's also the question of whether Transmeta will actually be able to deliver silicon in time for Amiga's target.

AMIGA OE AND AMIGAOBJECTS

The other aspect of the Technology brief discussed the new Amiga Operating Environment and the previously-hinted-at AmigaObjects.

As most readers will be aware from last month's shock announcement, the AmigaOE will run on top of a Linux kernel – that is, at least in the Amiga MCC. The Linux decision lends support to the notion that Transmeta will be providing the processor for the MCC. Transmeta are rumoured to be working on a special Linux kernel, highly optimised for their chip. Correspondingly, the Tech. Brief talks of 'binding the OS kernel to a specialized, high-performance hardware architecture that resolves many of the concerns… with existing Linux implementations'.



The Amiga OE will support two classes of application.

As we revealed previously, the Amiga OE will support two classes of application. Class one applications will be built from AmigaObjects, a powerful platform and network independent technology constructed with Java. These will work on any Amiga-enabled information appliance. Class two applications will be native Amiga MCC applications. The OE will support both classes with industry-standard APIs such as *OpenGL*.

The Amiga OE will use the *X Window* system to provide the graphical interface. A new Workbench-style desktop and window manager will be developed. A lower footprint windowing system will be provided for smaller appliances.



No, it 's not an iMac, it's the Amiga MCC.

Amiga MCC Specification

PROCESSING SUBSYSTEMS

- High performance next generation CPU
- Hardware assist for Linux kernel, Java VM, and classic Amiga emulation.
- 168-pin SDRAM DIMMs (future support for DDR SDRAM).
- 32MB system RAM expandable to 288MB (ATX goal to be expandable to 1GB).

GRAPHICS SUBSYSTEM

- Advanced superscalar rendering 2D and 3D hardware accelerator (unannounced next-generation ATI chipset – specs still under non-disclosure).
- 24-bit true colour depth supporting 640x480 to 1920x1200 resolutions
- Texture lighting and compositing, alpha blending, vertex- and table-based fog, video textures, reflections, shadows, spotlighting, bump mapping, LOD biasing, texture morphing, hidden surface Z-buffering, dithering, anti-aliasing, gouraud- and specular-shaded polygons, perspective correct mip-mapping texturing, chroma-key, bilinear and trilinear texture filtering. Additional features to be announced when ATI release next generation information.
- 32MB 128-bit SDRAM frame buffer

AUDIO/VIDEO

- DVD Drive standard (DVD-RAM when available).
- DVD playback including:
  MPEG-2 hardware decode acceleration, motion compensation and iDCT.
  Hardware sub-picture decoder with interpolating scalar and alpha compositor.
- Realtime video compression with MPEG-2.
- Still image capture acceleration.
- Analog TV: NTSC/PAL/Secam input, digitisation and TV outputs.
- S-Video and composite video I/O.
- Full channel TV tuner.
- 44kHz, 16-bit CD stero audio I/O.
- AC-3 Dolby Digital 5:1 channel decode.
- S/PDIF Dolby Digital output.
- FM radio tuner under consideration.

COMMUNICATION OPTIONS (IN DEVELOPMENT)

- V.90 56Kb/s modem.
- 10/100Mb/s ethernet.
- HomePNA 2.0 10Mb/s home networking.
- Broadband Internet options:
  1.5MB/s cable modem
  DSL modem
  ISDN modem
  Digital satellite decoders

MASS STORAGE

- Two E-IDE UltraDMA interfaces (support for four drives).
- Support two high capacity hard drives (ATX user configurations could support more).

INTERNAL EXPANSION

- 2 PCI slots (ATX target is 6 PCI slots).
- 3.5" open bay for Zip/Jazz/120MB floppy or other options.

I/O

- Infrared remote control devices.
- Microphone input.
- Display touch screen controller.
- 7 Universal Serial Bus (USB) 10Mb/s digital ports (2 in front for easy access).
- IEEE1394 (Firewire) option under investigation.

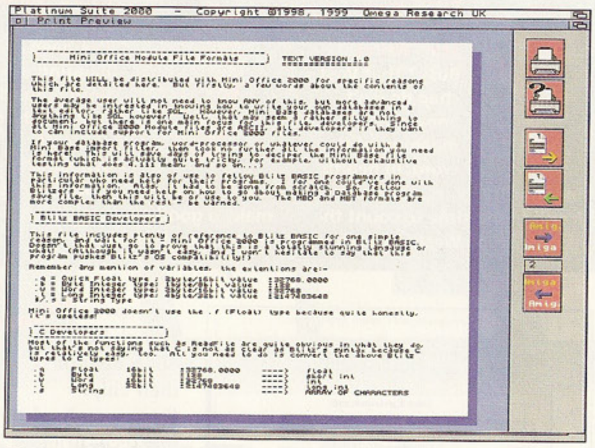
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New office suite

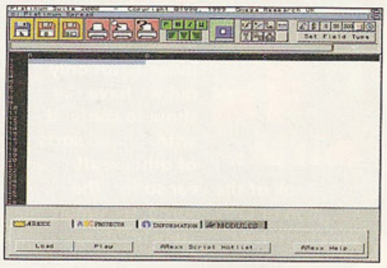
Epic Marketing have joined forces with Omega Research to bring out a new integrated office suite, called *Platinum Suite 2000*, this autumn. It contains six modules which include the usual word processor, database and spreadsheet, but also an organiser, calculator and simple DTP package. All the modules are designed to share their data with each other, which should make for a highly productive environment, and the authors say that, "Each module has ease of use and speed as its main emphasis at its core. Also, features which are not normally connected to a product of *Platinum Suite 2000*'s price".

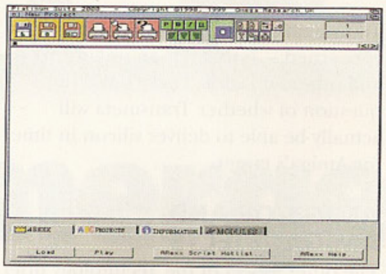
Compatability with other platforms and other Amiga packages is to be provided along with *PS2k*'s custom formats. The suite also apparently offers features not previously seen in Amiga software packages before now.

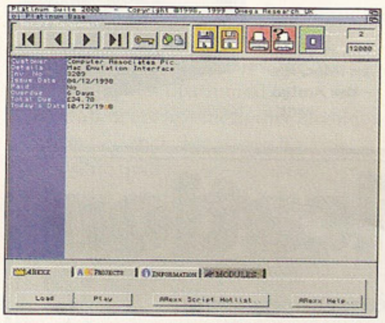
As yet, the price has not been set in stone, and the suite is still in development, but Epic are expecting to be able to start selling *Platinum Suite 2000* by the middle of October. It will need an 030, 16MB RAM, CD-ROM and hard drive. For more details, contact Epic Marketing on (0500) 131486.



***Platinum Suite 2000*, will this be the integrated office suite that everyone will want?**







***Platinum Suite's* database module.**

HIGH FIVE FOR RC5 TEAM

The Amiga RC5 Team effort has overtaken the Japanese Linux team in the Distributed.Net/RC5-64 challenge and is now ranked fifth overall out of over 7000 teams (consisting of an estimated 180,000 participants). The race for the fourth position is now underway, and we are gaining as fast on the Japanese FreeBSD team as we did on the Linux team.

The Amiga RC5 Team effort focuses on bringing exposure to the Amiga and the community spirit and strives to achieve this by ranking high in distributed computing projects such as the RC5 and DES challenges, using otherwise idle computing power only.

Almost 2000 individuals with about 3500 machines (over half of which are Amigas) are participating in the Amiga team now, and our growth continues. The number of PowerPC-equipped Amigas now stands at 580 (or about 30% of all Amigas). There is still plenty of time to participate, as the current search for the RC5-64 key stands at 10.5% of the keyspace.

Everyone is welcome to join, with any kind of machine, though at least one Amiga is appreciated. For a full explanation of what the effort is about, where it's heading, how to participate and everything from statistics to member listings, visit the Amiga RC5 Team effort homepage at http://distributed.amiga.org

The Amiga RC5 Team effort is also providing a mailing list as a forum for the discussion of the above topics and the effort in general, and recently Amiga themselves have pledged support.

100 Issues ago — AF28 November 1991

AMIGA FORMAT



We look at what was going on in the Amiga market 100 issues of *AF* ago...

- **Cover feature:** Want to know a secret? Graphics for games discussed with game creators like Mev Dinc and others. There's also a feature with a real rally driver and a pilot discussing the realism of some of the driving games and flight sims then available for the Amiga.

- **On the disks:** Demo of First Samurai and MiG-29, and a load of PD on the single disk.

- **News:** The closure of the CES in London by EMAP means that Future's World of Commodore show is the biggest in the UK, plenty of new products are announced: Scenery Animator, GB Route 2, Aegis Visionary, SuperJAM! and the first mention in *AF* of Directory Opus.

- **Prices:** Prices for software haven't changed much over the years, becoming cheaper if anything. A title like GB Route 2 would have set you back £80 in 1991 and Interspread, a poor spreadsheet compared to TurboCalc 5 now, would have cost you £49.95.

- **Games reviewed included:** Utopia (Gremlin) 84%, Head over Heels (Hit Squad re-release) 79%, Silent Service II (Microprose) 82%, Midwinter 2 (Rainbird) 87%, Final Fight (US Gold) 60%

- **Serious products reviewed:** Scala (SDL) 86%, ShowMaker (Gold Disk) 92%, ProText 5.5 (Arnor) 90%, Distant Suns (VRLI) 84%

- **Notes:** We're still not bad value for money when you consider that three quid was worth more then, and we now supply a CD full of material compared to the single floppy we used to do. Oh yes, and there are now proper scores for serious products too.

- **Pages:** 244
- **Cost:** £2.95

phase 5 and QNX team up

Following the surprise announcement that QNX is no longer to be used as the kernel of the next generation Amiga operating system, a suprise deal was announced between phase 5 and QNX Software Systems.

The deal gives phase 5 a licence to port the QNX Neutrino OS to its current range of PowerPC accelerators for the classic Amiga. This port will be made freely available to all existing owners of PowerUP boards. QNX benefit by gaining a hardware partner and existing user base capable of running a desktop version of its OS.

phase 5 have also revealed plans for a next generation multimedia computer known as the AmiRage K2 which will ship with the QNX Neutrino operating system and legacy compatibility for AmigaOS 3.x. The K2 will be a multiprocessor system, supporting up to four G4 processors, and will feature up to 2GB of SDRAM, PCI slots and some unspecified 'leading edge 3D processor'. Coincidentally, the audio, video and I/O capabilities of the K2 seems remarkably similar to the specifications of the Amiga MCC.

The K2 is scheduled for release at the beginning of 2000. Given phase 5's track record on PPC-box announcements, though, few Amiga users will be holding their breath. phase5 say, 'We are excited that we finally can create a product technology which we could not realize in the past, due to the lack of OS support... the QNX Neutrino OS concept is also in full accordance with our vision of a new OS... we feel that we can finally make the dream of many Amiga users as well as other computer users come true'. A price for the AmiRage K2 is yet to be announced.

phase 5 and QNX. A peculiar partnership or a force to be reckoned with? Only time will tell.

AAA winners

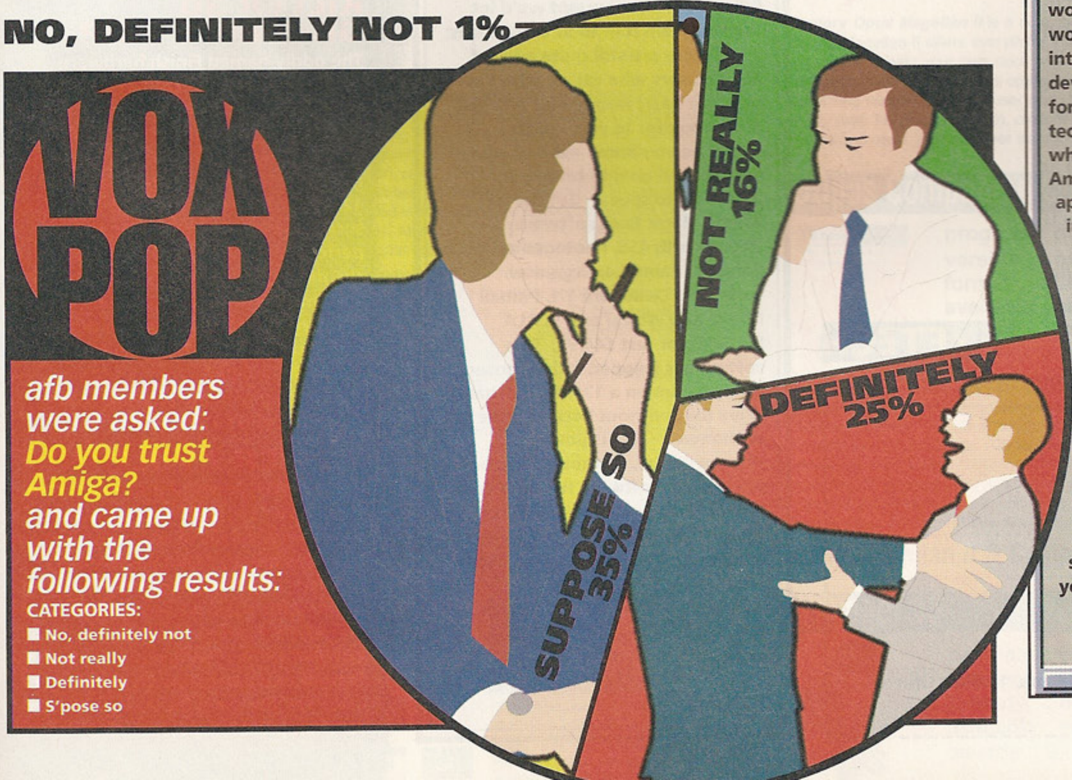
Although it's true that I, Ben Vost, won the UK award from the AAA, the international award is by far the more prestigious, with a custom-designed crystal Boing Ball going to the winner. This year, the nominees were Marcel Beck; Haage & Partner; and phase 5 and Haage & Partner; and perhaps unsuprisingly Marcel won. Unfortunately, neither he, nor Wolf Dietrich, who was going to represent phase 5, could make it. Jurgen Haage, who was accepting Haage & Partner's nomination, and also phase 5's on behalf of Wolf, looked a little forlorn standing on the stage on his own, but lead the clapping when Marcel Beck was announced as the winner by Petro Tyschtschenko.



Well done to Marcel Beck, who walks off with a very nice glass Boing Ball and some deserved recognition.

The AAA awards commitee gave the following as the reason why Marcel Beck was given the award: "For his creation of and continuing devotion to *YAM*, Yet Another Mailer. Its many features, ease of use, stylish GUI and stability make it an unparalleled e-mail client, which also is completely free!"

Although Marcel Beck could not attend the show, the organisers played a taped acceptance speech he had made in an interview with the organiser Martin Sahlén just before the event.



Vital Horgan



With a CPU, operating environment and technical specs virtually all in place for the NG Amiga, it's time that attention was turned to the crucial matter of software. It's no great revelation to suggest a new system needs a killer app to get off to a good start, but what should that be? I've got a couple of ideas. The first one is inspired by the animation processing system, Wildfire. It's not killer app material right now, but with the right hardware at its disposal and some re-development for the professional sector, I'm sure it could do the business. Imagine an all-in-one desktop video system with the ability to combine at least two live broadcast quality video streams, process them in realtime with a range of software-based (and hence infinitely-expandable) effects, with both broadcast and monitor outputs. With software written to take advantage of the power and flexibility of the Transmeta chip (or whatever it is they end up using), such a system could wipe the floor with the competition, in terms of value for money, efficiency, upgradability and versatility. I'm not talking about "Bill's Wedding Video Services" here either. With the right connections and interfaces to professional TV and video gear, this could become a mainstay of TV studios the world over. While that in itself wouldn't amount to a whole lot of unit sales, the machine's awesome reputation would soon spread, and it wouldn't take long before interactive entertainment developers realised its potential for all kinds of next generation techno fun. And before I go, while we're on the subject, Amiga, please make some approaches to the major players in original, high quality video game development. Co-fund the development of a game that will be available exclusively (for a time at least) on the NG Amiga. The reason you'll need to co-fund it is to lessen the financial risk on their part, allowing them to give the project their full creative talents. Tell them you want to invent a whole new game genre. If they balk at the suggestion, you'll know you've asked the wrong people.

Tony Horgan

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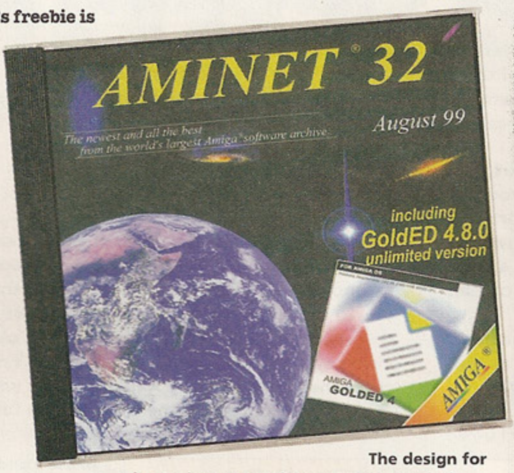
Product News...Product News...

■ Aminet 32 is now available from the usual sources. It's freebie is a special version of *GoldEd 4* (4.8.0 to be precise) and it has more than 190MB of new files that have appeared since Aminet 31.

■ Following stories that people found the Power Tower A4000 easier to build than Richard's article last issue led them to believe, Power have said that the side panel, onto which you fasten your motherboard, can be lowered making for easier access.

■ *Photogenics v4.1* release 57 is now available as a free download for *Photogenics 4.x* users. The new version encompasses better docs, greater stability and new features.

■ *HydraBBS* gets a bug-fix. The changes from 1.07 to the new 1.08 are slight, but important and include fixing the broken HBBS_SaveFile() function.



The design for the Aminet cases changes sooo regularly...

■ *Myzar 2.0* is released. The new interface for the *RC5* challenge includes the ability to view PPC and 68k stats side by side for those wanting to assign both their processors to the task of cracking the *RC5* encryption. There are also other features, including a nice collection of moo sounds for when you complete a block.

■ *akNAIL* is a new datatype that the prolific Andreas Kleinert has added to his list. It recognises and displays *ImageFX* thumbnail files.

■ *BurnIT* is now up to version 2.50. The new version enables you to copy CDs on the fly, supports PPC, much better drag and drop support and more.

■ OS3.5 should be shipping by the time you read this, however, beta-testing is still proceeding as we write this, so there's no guarantee.

Eyetech take on Nova

Nova Design have joined hands with Eyetech to offer Nova's products to the UK on an exclusive basis. Eyetech will be supplying the newly-finished *ImageFX 4*, *Aladdin 4D* and the *Wildfire 7* package being shown at the World of Amiga show by its author.

When asked about the deal, Eyetech boss Alan Redhouse had this to say: "If you have been reading Kermit Woodall's series in recent issues of *AF* then you'll know how powerful *IFX4* is, and why we are so pleased to have been chosen as Nova's exclusive UK distributor".

As an introductory offer Eyetech are giving 15% off the prices quoted in this issue for any of Nova Design's products (including add-ons and upgrades – proof of purchase required) until 30th September 1999.

Just clip out and send in this coupon below.

EYETECH

15% OFF

Name: ....

Address: ....

....

....

....

Proof of purchase enclosed ☐
Send to: Eyetech Group Ltd, The Old Bank, 12 West Green, Stokesley, North Yorks. TS9 5BB

It's a kind of Magic

Eyetech have a special deal going right now for owners of base A1200s. We thought we'd let them explain it in their own words:

"There are still quite a lot of Amiga users who call us who have only got basic floppy disk A1200s. If that applies to you – or to someone you know – then here is a very special deal to bring your A1200 up to speed. Get the full Amiga Magic Pack software (Wordworth 4SE, Photogenics 1.2SE, Personal Paint 6.4, Organiser, Turbocalc, Datastore 1.1, Pinball Mania and Whizz) and SCALA MM300) for just £44.95. This software is shipped fully licensed, ready to run on a 170MB 2.5" hard drive (but without backup diskettes or manuals – this is your responsibility). Although you only pay for the software the hard drive (which is otherwise unused) is yours to keep. Limited stocks are available. This offer expires 30th September 1999. Please specify whether you have 3.0 (V39.x) or 3.1 (v40.x) Kickstart ROMs when ordering."

Contact Eyetech on 01642 713185.

Other news

SUN MAKES MAJC

Sun Microsystems have announced that it is developing a processor targetted at the information appliance market.

This CPU is known as MAJC, Microprocessor for Java Computing, and pronounced 'magic'. Few details have been released regarding this architecture but it seems that the emphasis will be on the processing of multimedia data streams, perhaps similar to Intel's SIMD (Single Instruction, Multiple Data) extensions to the PentiumIII and Motorola's AltiVec technology.

Given Amiga's acknowledged partnership with Sun, MAJC would seem a perfect choice for future Amiga devices.

LINUX FOR WORLD DOMINATION

The Linux momentum is pushing the free OS further into commercial areas. SGI have recently announced that it will be porting Linux to Intel's Merced processor when (or if) it is released. The future for IRIX, SGI's own proprietary flavour of UNIX, does not look so certain.

Also this month, Motorola has revealed a partnership with Caldera, makers of the OpenLinux distribution. The deal will allow the porting of Embedix, Caldera's embedded version of Linux, to Motorola's range of embedded processors, including the PowerPC, mCore and 680x0 series. Hopefully, the deal will see encourage the production of a PowerPC version of OpenLinux.

KILLER 3D GRAPHICS CHIP

The oddly-named Finish hardware developers, Bitboys Oy, have unveiled the specs for their forthcoming graphics chipset, Glaze3D. It will initially ship in two versions the 1200 and the 2400, which can churn out 1200 and 2400 million 32-bit texels per second, respectively. This high performance is realized by removing the memory bottleneck from the system. The technology supports up to 18MB of DRAM embedded in the processor core as a frame buffer and up to 256MB of SDRAM on an external 128-bit bus. Volume production is targetted at Q1 2000.

POWER EVOLUTION

IBM's POWER series of processors is set for another evolutionary leap when they unveil details of upcoming Power4 later this month. POWER is the RISC ancestor of the IBM/Motorola PowerPC collaboration and is used in IBM's AS400 and RS/6000 server families. The POWER4 will be the first in the range to feature two processors cores and an L2 cache on the same die and is intended for multiprocessing solutions.



Simon Goodwin's presence at the show was lucky since he was the only one in a position to bring you **all** the news…

This year the World of Amiga show moved across London from Hammersmith Novotel to Kensington Town Hall, and was much improved as a result. Under the influence of AmigaSoc, who shared the organisation with long time WoA kingpin Peter Brameld, it combined the function of a commercial show with a gathering of the clans and development conferences, open to all. Seminars, competitions, usergroups and helpdesks augmented the customary commercial focus.

The main snag of the new venue was a dodgy set of telephone circuits, which caused some problems with credit card clearance, Internet connections, and the transatlantic linkup to US enthusiasts who shared the Saturday evening conference by 'phone and webcam. One AmigaSoc volunteer got a belt from the phone circuit when he tried to make a direct connection to link the continents, so we ended up with a handset taped to the microphone, and literal and metaphorical howls at each end of the link, but apparently the Americans heard all the speeches, only missing the promo video soundtrack.

THE VENUE

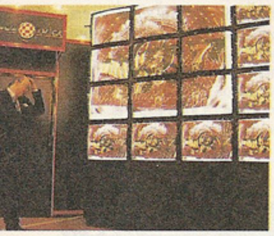
The show was spread across three floors, in the big, plush municipal building, using four main halls and ancillary rooms, including a couple of lecture theatres. Usergroups and an Internet café nestled above and below the main halls, which held *Amiga Format* and the big trade stands, with a stage at one end for Petro to demonstrate his inimicable microphone technique, dish out awards, and the Annex dancers to strut their stuff.

Amiga's stand had even more memorabilia, including AmigaCola, socks and even Boing shorts, as well as the usual themed matches, pens, CDs, mice and mats. The new release of classic AmigaOS, 3.5, was previewed on the big screen and explained in detail in the small hall upstairs, just one of a stream of informative presentations throughout both days.

There seemed to be rather fewer people from continental Europe than last year, though Dutch, French and German Amigans were conspicuous, and the North American contingent was bolstered by an enthusiastic posse from QNX in Canada. These people seemed to have been hand-picked for their diplomacy, and did not comment on the Linux volte face, but their friendliness and enthusiasm reinforced their widespread support among Amiga tech-heads.

FUTURE SEMINAR

The biggest hall, normally used for Kensington Council meetings, was commandeered by hundreds of Amiga users on Saturday night. A fast-paced



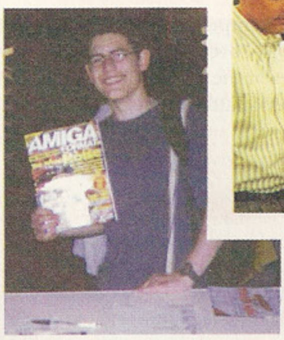
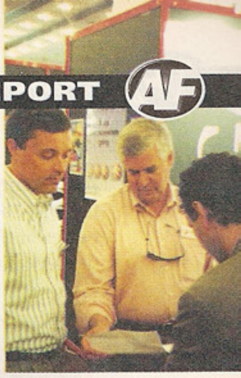


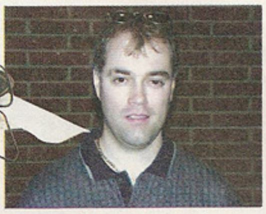
[All captions are clockwise from top left] The video wall was busy, the show was busy, even we were busy.








Our JC; our 100th subscriber of the show; the gang; Jens Schoenfeld (out of uniform); a trader; Brent Daniels of QNX; moi holding my bottle of champagne and plaque (thank you dahlings, for voting for me, I love you all...)

but woefully transcoded video set the scene, tracing the history of the Amiga from Commodore, illustrating the original designers, the Escom wilderness and Gateway's initial dithering, before focusing on the new team and their plans for the future.

Petro Tyschtschenko introduced Jim Collas, joined on the podium by ex-Commodore OS overseer Allan Havemose and recent recruit Rick LeFaivre, who worked for years at Apple and charmed us by saying 'sorry' when this was first mentioned. The new COO (Chief Operating Officer in US business-speak) Tom Schmidt was introduced, but said nothing – despite, or perhaps because of, rife rumours of an Initial Public Offering for new Amiga stock.

This presentation was pitched at the faithful, and the symbolic content got a rousing response, but there was little substance to the video, and it was worrying to see that the new Amiga company have a lot to relearn about camera work, video editing and standards. As usual since Gateway's takeover, the main presentation used Microsoft's grotty *PowerPoint* rather than Amiga *Scala* presentation software, and Jim Collas gave the hackneyed excuse that he'd needed to edit it on his PC notebook on the flight over. But at least it didn't crash this time.

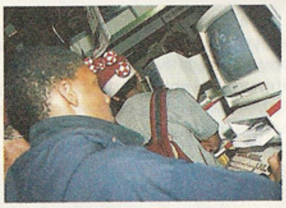
The slides duplicated those shown at the Heathrow conference months before, with a few company names edited out, and the speech was very similar. Jim forecast the growth in information appliances, overtaking computers, and the key technologies of 'AmigaObjects' and Java were introduced, but not explained. A passing mention of chipset developers Transmeta was greeted by a loud cheer from those who presumed to know rather more than the new Amiga company is currently letting on – which seemed to include most people in attendance.

Rick LeFaivre tried to justify the switch from QNX to Linux, citing real-time performance that trounced PCs but was unexciting compared with current Amigas, let alone existing QNX applications. Allan Havemose flashed up a slide of a new computer architecture, with PAL and NTSC video input and output, two PCI slots, seven USB connections, a couple of EIDE drives, and unspecified multimedia processors and software in the middle. Apart from that, and a TV-style mock-up concept cabinet, there was surprisingly little 'meat' to the presentation, and several apologies for commercial secrecy.

Despite attempts to show that something is happening, we still don't know a lot about the future Amigas, and ritual Microsoft bashing aroused the most response. The hall was set up for electronic voting, but there was no

Continued overleaf ➡







Amiga were busy; Simon was busy telling QNX that they were the best; Annex were busy doing calisthenics (or something); Kermit was busy clutching at passers-by; the stands were busy; Paul and wife were too and so was Alan Redhouse!

attempt to gauge the preference for QNX over Linux. In fact there was not even the usual question and answer sequence after the speeches. The video ran again, and we filed out, encouraged but otherwise little the wiser.

TRADERS AND PRODUCTS

Power Computing introduced Punchinello, a PC mouse adapter for the Amiga controller port, which supersedes Topolino. Currently it supports Genius and Microsoft mice, with more to come, including extra buttons and mouse wheels.

They had their neat new Power Tower for A4000s on a separate stand, demonstrating the swivel hatch for easy motherboard fitting, which they failed to mention to Richard last issue. The Gold Edition PowerFlyer now comes with *Allegro* device drivers, claimed to outrun *IDEFix*. The unfinished A4000 version was previewed and should be even faster than the A1200 model, though a bit more expensive.

Power announced their intention to import Melody 1200 sound cards, reworked to rival Prelude, and Twister 1200, a new German serial interface with hardware handshaking. This advance for A1200 interfaces should prevent data corruption when software does not multi-task properly.

New software included the game *Red Mars*, *WildFire7* video effects for PPCs, and *Power Movie*, a fast AGA animation replay system. Power even previewed their own Internet service, promising full Amiga software and support.

Eyetech introduced a remote-control keyboard and trackball combo, originally made for PC users and since adapted for Amiga ports, plus their usual range of adapters and accelerators, and a video bargain, offering a 'free' 14 inch SVGA monitor to anyone who bought a £100 flicker fixer and £25 speakers.

Eyetech take Amiga usage seriously, running an impressive Amiga-powered network around their large stand. All orders and enquiries were processed by an A4000/030 in the back room, connected to four bar code scanners and a couple of printers out front. Half a dozen serial and parallel connections from an IOBlix card and the Amiga motherboard allowed automatic invoicing and stock control, thanks to more than a dozen separate tasks running concurrently on the A4000, querying and updating a SuperBase 4 database via ARexx scripts.



New hardware galore! The new 2040, 1240 and ZorroIV board from Power and the MCC. And (gasp!) the case designs for the NG and monitor.

Jens Schoenfeld of Individual Computers was touting new multi-IO cards for A1200 clock ports, Catweasel and Buddha, but still no FlashRom or floppy-port MPEG. He's been busy changing address, servicing Apollo cards, and making boards for VBC. Atéo had a working Ethernet card for their ISA-based A1200 towers, but still no proper serial port drivers.

HiSoft had *iBrowse 2* on sale for the first time, with Javascript support and their *Net&Web* TCP/IP bundle included in the £30 package or £12 upgrade price. *Voyager 3* was previewed, and *AWeb* has been integrated into the new Amiga OS (see box).

There were mountains of games, especially CDs and old floppy titles at bargain prices, and two 43" screens for competitions and game demos.

BOXER SLIPS

Mick Tinker of Index Information and Blittersoft's Paul Lesurf took an unusually low profile in a corner of a shared stand. They had hoped to show working BoXeR systems, and Mick had yet another feature list and board design in his pocket, but recent re-design work meant that BoXeR again failed to show.

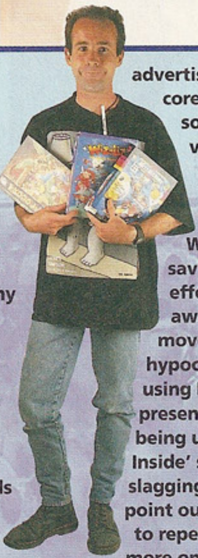
We gather that the original plan for a first-generation BoXeR based on Commodore chips was scrapped after a disagreement between Index and Amiga International. Faced with uncertain supplies and a big price hike, the designers opted to go it alone, re-engineering the Amiga chip set, rather than buying in Commodore's best effort and moulding a faster motherboard around it.

The new design has a unified memory architecture, so all memory is effectively 'chip RAM', but many times faster, allowing new modes and



Dario Pane showing off PowerMovie; Eyetech explain how to build a tower; Waaslandia (where the IRC conferences were held) and some of the (other) mags; Kickstart (holding up Amiga Insight); ASA; Seal (holding up AF – much better); multiplayer games; the abortive cybercaff; CAUG; WLAC; Michael Garlich of Titan; our stand (inset) and someone strange examining an accelerator,

Paul Cavanagh gives his views on WoA as someone who has only recently returned to Amiga computing.



There's a terrible confession I have to make, so bear with me, this isn't easy. You see, up until I started work here at *Amiga Format*, my Amiga A1200 had been languishing forlornly in my parents' attic. I gave up on it when the assistant in my local branch of Game sneered at me when I enquired as to why there were no Amiga games on the shelf these days. That was two years ago. Naturally, it's now back with me, up and running, and it feels good to have it back. Given that I've got a lot of catching up to do, I jumped at the chance to attend the World of Amiga Show, so that I could meet you, the great Amiga public, and find out what Amiga are up to. It occurs to me that there are hundreds of thousands of people out there just like me, who have been neglecting the Amiga, and may well be excited to hear of the imminent rebirth of the Amiga. So here's my perspective as someone who feels nostalgic about Amiga computing, and is really rooting for Amiga to make this new project work.

Most of my time at the show was spent on the *Amiga Format* stand, selling *AF*127 and subscriptions. This was a busy time and pretty tiring work, but it was a great opportunity to meet readers and gauge the mood of the Amiga community. I was quite taken aback by the level of feeling surrounding Amiga's decision to use Linux over QNX, and impressed at how well-informed Amigans are (we covered the story extensively in *AF*127 and it was the last thing to go into the issue, so given that the magazine hadn't even been sent out to subscribers at the time of the show, it was impressive that most people even knew about it). I'm not sure that most people honestly felt that QNX was the best way forward, but I know that nearly everyone is sick of being mucked about by Amiga, and that this was one u-turn too many. So you're a well-informed, alert bunch. It was fantastic to hear so many of you talk with great enthusiasm about the Amiga (both classic and NG), and to be reassured that I was working for a magazine that is held in such high regard by its readership. So thanks to everyone who said nice things about the magazine. I really enjoyed asking people what they had bought at the show, and watching people producing an amazing assortment of goodies from various plastic bags and rucksacks, whilst enthusing about what bargains they had come across. It's good for those people who have now got new bits and bobs at great prices, it's good for the retailers, it's good for us because we might benefit from additional advertising, and it's good for Amiga because they continue to have a core user base who in turn are supported by manufacturers and software developers. So that's good then. All in all, then, I was very impressed by you, the Amiga community.

I've got to say that I was less impressed by Amiga. The press conference was designed to wow, with Jim Collas sermonising very effectively. His demonisation of the great Satan that is Wintel was fun, while his deification of Amiga as the messianic saviour offering a New World Order in computing did have the effect of filling me with enthusiasm, leaving me breathlessly awaiting further announcements. But like most religious movements, it's easy to pick holes in the argument, and to point out hypocrisy. It was a grave error for Jim Collas to present his sermon using Microsoft's PowerPoint, a fact that was not missed by anyone present. I happened to be sitting right in front of the laptop that was being used for the presentation, and unsuprisingly it carried an 'Intel Inside' sticker. Not good, not good at all. While it is fun to hear Amiga slagging off Microsoft publicly, and while I accept that it is necessary to point out that an alternative is required, I thought it was a tad childish to repeatedly poke fun. It would have been better to have focused more on Amiga's strengths and less on Microsoft's weaknesses. I do recongnise that it is part of Jim's style to get a bit carried away, and maybe this works in his favour. What is less forgiveable is Amiga's lack of consideration to the Amiga community. To me, charging £10 for a ten minute promotional video is outrageous, especially given that Jim Collas was so enthusiastically trying to enlist support from the community. A charge of £2 to cover media costs would have been understandable, but it would have made much more sense to have given as many copies of the thing away as possible for nothing. I also apply this argument to the promotional lighters, socks, t-shirts and boxer shorts that Amiga were selling. The Amiga brand needs to be seen to be succesful, so giving away t-shirts etc makes sense. And it doesn't do any harm to keep Amigans happy by given them a few freebies either. The worst insult of all was AmiCola, a really quite foul cola that Amiga were selling for £1. A quid for a can of cola? Not on your nelly. To be fair, Amiga did give away a few goodies if you hassled them enough, but they shouldn't have charged anyone in the first place.

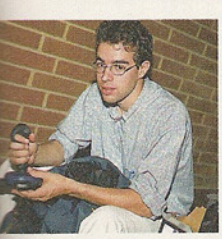
All in all, it was a great show, and I'm looking forward to what the future has to offer the Amiga community. I was glad to get home, mind you, suffering as I was from a stinking hangover (for which I simply have to thank Tore Bjørnsen from Norway, cheers!), and feeling horribly, horribly tired. And I somehow made it into the office for 9:30 on Monday morning. See how dedicated we are here? Probably at least as dedicated as you Amigans who stick with your machines through thick and thin. Good on you.

Continued overleaf ➡



negligible performance loss when the processor and video compete for time. The Amiga's Direct Memory Access scheme has been extended so that most peripherals support fast DMA, increasing throughput and reducing processor overhead. The ATX motherboard fits any standard PC case, with two 64-bit DIMM sockets, four active PCI slots, and five optional Zorro 3 expansion slots, driven through a fast serial bus. The twin IDE ports support UltraDMA modes, and both printer and RS232 ports have DMA and buffers, for the first time on any Amiga compatible. BoXeR adds sockets for a PS2 keyboard and mouse, as well as the Amiga mouse and joystick.









Steven Flowers from Alive; makes you tired, don't it; Geoff Milne – give us a choon; there's a whole lot of gaming going' on; the delectable Linda Campbell from QNX presents Paul Nolan with a QNX t-shirt (where's mine Linda?); purchases aplenty; Rich convinces that a sub is a good idea; while Weird Science convince that buying is a good idea; Tony just makes people offers they can't refuse; as Chris Wiles tries to convince people that NetConnect 3 is almost ready; this guy's playing that other one you know...

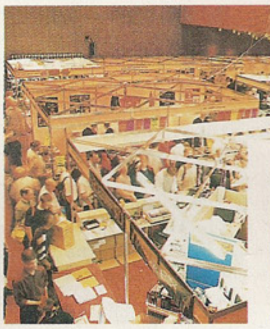






THE WORLD OF AMIGA

Tim Corringham sells out of PFS2; Paul Nolan demonstrates the much improved Photogenics 4.1; all that running around makes people tired; while I try to get our sodding machine working. Although Saturday was plenty busy, the Sunday was dead by comparison – odd considering the cheaper tickets, etc.





Processors from 25 MHz 68040 to 75 MHz 68060 are supported, with a connector for a 64-bit PowerPC expansion. Index insist we'll be able to test their claim of 100 per cent Amiga compatibility before the end of the year, but as time passes BoXeR risks becoming overshadowed by the new Amiga architecture.

MEDIA

For the first time, *Amiga Format* was the only professional publication on show. Alive mediasoft and Power Computing made their own attempts at dressing up catalogues as magazines, and *AmigActive* touted a superficially thick mockup of their delayed launch issue, stuffed with facsimiles of *AF* adverts and interesting headlines, but meaningless random text underneath.

These efforts were humbled by the real magazine from Essex users SEAL, which is 'amateur' in only the best sense. The third issue of their *Clubbed* fanzine is beautifully printed, although only the front and back are in colour, and apostrophes seem to be the editor's blind spot. *Clubbed* is packed with interesting and informative articles, with issue 3 focusing on Amiga developments and the Internet.

> **"For the first time, Amiga Format was the only professional publication on show."**

Last minute Linux news missed the main 40 page A4 magazine, but was copiously discussed in a densely printed A4 stop-press supplement. With only 100 subscribers, *Clubbed* is clearly a labour of love, and deserves lots more support from print enthusiasts for whom *AF* is not enough.

FINAL THOUGHTS FROM CHAIRMAN BEN

I didn't get much time to actually look around the show, what with all the meetings I had to attend, and people I had to see, but speaking to you lot has always been the best part of going to a WoA, and being able to put faces to the names I regularly see on the afb, or in general email is always nice. For me, the show was superbly organised, with far

Amiga OS 3.5 Preview



Workbench 3.5 was still beta-testing as the World of Amiga show took place, but developer Jochen Becher was on hand with a big projector screen to demonstrate and answer questions about the operating system upgrade.

COLOURS

The new Amiga OS supports 24-bit colour throughout, with datatypes and printer drivers extended for true colour images. Third party packages do bits of this job, but it takes a new OS release to tie everything together, substantially benefitting graphics card users.

New Workbench icons use the 31 colour Glowicons palette, retaining Commodore's old four colour imagery as a fall-back, particularly for ECS Amigas with limited colour depth. Revised palette preferences are now dynamically updated, by redrawing the entire screen, in direct mapped colour modes.

The improved icon scheme supports images in up to 255 colours. Application icons can be animated, but not file icons. For instance, the release will include a windowless clock icon that updates anywhere on the screen. The icon editor is a vast improvement, with adjustable zooming and an option to automatically add the 'glow look' for selected icon imagery.

Olaf Barthel's code automatically converts images that used the NewIcons patch. Default icons are related to file types by a new database, allowing more variety and information on-screen, and smarter AppIcons can intercept menu messages like Rename and Info and respond appropriately.

Font preferences include a preview, reminiscent of the Workbench 3 palette editor, showing altered icon and window text instantly as you select different fonts. A new configurable 'fallback font' is used automatically when a window is too small to fit the required text in the normal default font. Preference windows are resizable and cope better with custom fonts.

PRINTING

Commodore's printer drivers are woefully outdated, given developments since 1993, and limited to 4096 colours. The new OS transforms printer support, making it easier to use, more powerful, and compatible with modern printers and interfaces.

You can now configure up to ten printers of multifarious types on various ports, all with unique settings. The Printer and PrinterGraphics preferences are merged and extended. You can also 'print' to files or any network device via Envoy.

Colour settings update a preview photo of Amiga International's Nicole Gottfried, giving a much better idea of their effect on your printout. Page previews show true borders, illuminating for printers that cannot reach the whole page surface.

Standard datatypes include GIF and 24-bit JPEG; the new Picture datatype is RTG-friendly, and at last the Audio datatype works in stereo. Multiview supports all this, and can belatedly embed pictures on the same screen as text.

EXTRAS

Any modern OS must include Internet software, and Haage and Partner has



Richard Drummond took a (metaphorical) licking, but just kept on ticking

This year's World of Amiga show was not quite the experience that I had expected. This was actually nothing to do with the show itself; it was due to the fact that I had developed tonsilitis and Bell's Palsy in the previous fortnight. Not only was I in intense pain, but all the muscles in the right half of my face were completely paralyzed. Consequently, I looked like a cross between a Bond villain and a stroke victim and slurred my words like I'd downed a full bottle of whisky. As you can probably imagine, all this was not much fun for a social occasion like the WOA. Nevertheless, I armed myself with an economy-sized pack of Nurofen and was still determined to enjoy myself.

The hot topic of discussion for everybody at the show was Amiga's recent decision to dump QNX and opt for Linux as the kernel of choice for the next generation machine. Knees could be heard jerking all over the Amiga world when this announcement was made and, in fact, I myself was initially disappointed with the move. QNX seemed new and fresh; Linux dull. I do use and like Linux, but it's hard to picture Linux with all its baggage as revolutionary. But when you sit and think about the decision, it does make sense. The evolutionary force behind Linux is remarkable. So, while at the moment, the monolithic Linux kernel may not be exciting, in a couple-of-update's time it could well be.

Perhaps the most interesting part of the show for me was the video conference on the Saturday evening. This was not because it was particularly informative, because it was not. But it was entertaining. The first performer was Jim Collas, high priest of the Church of Amiga, proselytising the Amiga dream and demonising the Wintel hegemony. Stirring stuff, at least for those less cynical than I. The congregation was even offered a brief moment's revelation during the Amiga promo video which was shown: the mystical name of Transmeta was flashed on the screen as one of Amiga's partners.

The next turn was the Rick Le Faivre and Allan Havemose double act. One might have thought that these two, playing more technical roles in the company, would have presented us with some solid facts. Alas, no. Their act was more convincing than Jim's but was largely a damage limitation exercise for the Linux decision.

This defensive attitude struck me as odd. If you listen to what Amiga are saying then you will realize that the choice of kernel does not matter. Most Amiga software will not see the kernel. Its services will be accessed through higher abstraction layers, APIs provided by the Amiga Operating Environment. Let me rephrase that: the kernel only matters with respect to each particular realization of NG hardware. New Amiga devices will more than likely be built with a wide range of different CPUs. The choice of kernel is irrelevant as long as they choose the right one for each particular CPU. So, if the Amiga MCC is built around Transmeta's wonder chip, then Linux makes sense. But it will not be a Linux kernel that anyone has seen before.

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more going on than in previous years, largely thanks to AmigaSoc, but while the intentions were good, the execution wasn't always, and signage and announcements of events weren't as good as they should have been. The problems with the cybercafé were a shame, and the parking was expensive, but the venue was much nicer than the horrible Novotel (if only for the sheer quantity of places to eat on Kensington High Street!). However, like many people, I was muttering that a central London location for the show was not only too expensive and hard to get to, but also not ideal for people who had to travel, from the depths of Scotland (or perhaps that should be heights? Highlands? Oh, never mind). In any case, I'm pretty sure we'll see the next UK Amiga show in a far more suitable location for the majority of Amiga users. Last, but not least, I'd like to thank all the usergroups for attending. Not only did they not "drag the tone down" as some worried, they positively improved the quality of the show for me.

For next year? If Amiga's plans are still working to schedule, it may be the last large-scale classic Amiga show we see, if the NG does as well as we all hope. If that's the case though, we'll still be there saying hello to all those new and returned Amiga users desperate for info on their new and easy-to-use machines. It's a lot of "ifs" admittedly…

I may have been a bit distracted or seemed rude to you, if so I apologise – a lack of time prevented me being polite to everyone, but I hope to see you next year, when I'm sure we'll all be able to drink a toast to the new machine – "The Amiga is dead! Long live the Amiga!"

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opted for a 'slightly cut-down' Miami Deluxe stack, plus a subset of the browser AWeb, with Javascript support. The email client is small but extensible, built on a powerful Amiga Message Library which promises fine net integration.

Other new libraries include HDlibrary, which collects 64-bit disk routines in one place, allowing vast drives in HDToolbox, and a Resource library that lets you edit and generate custom gadgets and interface hooks.

Shell improvements address date handling and larger drives, like versions of MOUNT and FORMAT that can see beyond 4GB. The Installer can run on its own screen, with graphics and a new script command for easy back-tracking. Uninstallation remains a problem for the script-writer – it's possible, but not always simple.

The Workbench interface is subtly improved. Multiple files can be selected individually without using SHIFT, a rectangle or a third mouse button, and there are many extra keyboard short-cuts.

You can lock pointer movements vertically or horizontally when dragging, reducing alignment wobble, and scroll windows more easily with keys. Windows can be automatically resized to fit their contents, and the rather feeble Workbench 2 CleanUp operation is vastly improved, with options to arrange icons by name, time, size or type.

An extra control key lets you copy, rather than move, files within a volume. File copying operations now display a progress window, but Workbench is still single-threaded, so you can't copy more than one thing at a time. The authors of Scalos and Directory Opus will be relieved to hear this, but others will be upset that they still have to wait....

COMPATIBILITY

The developers have declared that stability and compatibility are their primary aims for the new release of the OS, while slotting in new features whenever practical. The update was criticised by WoA delegates who could see little difference from the current version, plus PD hacks.

Herr Becher explained that his team had spent five months preparing this update, without a new ROM, after five fallow years, and stressed that the changes under the bonnet are significant, but will take time to appreciate. Old hacks are often redundant, but compatibility is good – *Birdie, MCP, NewIcons, SwazInfo, ToolsDemon, VisualPrefs* and most of their ilk still work, though – as in the case of *NewIcons* – they might be entirely redundant.

At the time of the demo, the preferences editor for ReActor, the GUI toolkit, was not finished. This controls an extended *ClassAct* interface, for new gadgets and resizable windows, with control over borders, layout and spacing similar to those in MUI preferences. The reactor GUI generator will be included free in the Native Development Toolkit, scheduled for release a month or two after the main OS upgrade. Autodocs, examples and tutorials for developers will also follow then.

FUTURE

Jochen Belcher made it clear that Amiga owners will have to buy the upgrade in large numbers to ensure further development. "The success of OS 3.5 determines the future of version 4.0. If it doesn't sell well, Amiga Classic is dead", he warned. The next OS upgrade will include a new ROM, allowing far more extensive improvements, but the development team reckon this will at the very least need a year of testing before it can be released.

Multi-threading, stream and editing datatypes, shared file tracking (for uninstall) and PPC support beyond the bundled WarpOS kernel are mooted for the next release. If all goes well, this could arrive late next year or early in 2001.

EYELINE

Bringing you the latest Amiga News from Eyetech
http://welcome.to/amiga.world

LATEST NEWS IN BRIEF

GREAT SUMMER SPECIALS
FREE COMPAQ MONITOR

If you buy an EZVGA-Plus external compact scandoubler/flickerfixer and a pair of 240W PMPO amplified speakers (SPK-240W) before 30 September 1999 (or until stocks are exhausted), we will give you a 14" SVGA Compaq ERC Monitor absolutely free (normal delivery charges apply). These monitors are ex-corporate replacements, fully tested and without screen burns or scratches. Call for further details.

DIMAGE V CAMERAS BACK IN STOCK

When we announced the availability of the Dimage Camera 2 months ago we were inundated with orders and sold out completely within days (some purchasers were so impressed they ordered a second camera immediately after receiving the first!) Well, we have managed to buy the last remaining stock of this superb camera and the bundle price - complete with the acclaimed CamControl software for the Amiga (as well as Minolta's own Mac & PC software) is still just £259.95. (These cameras sold for over £800 just a few months ago). Briefly, these cameras feature:

- Swivelling 2.7x Minolta optical zoom lens with macro focussing to 5cm
- Removable smart-media card storing up to 60 images in JPeg format on the 2mb card supplied
- Auto-exposure flash, with daylight fill-in function
- LCD display for framing and replaying pictures
- Bi-directional serial interface for picture downloading, and the taking of pictures under computer control (ideal for webcam applications)
- 1m lens extension cable, so the lens can be mounted remotely from the camera for close-up or web-cam/surveillance work
- Truly pocketable size at 130x65x40mm (including zoom lens) and comes complete with soft carrying pouch and wrist straps
- Runs on 4 x AA batteries or from the mains PSU included
- Amiga, PC and Macintosh software included
- Full 12 months return-to-base Minolta UK warranty

SPECIFICATIONS IMPROVED ON EZPC TOWER SYSTEMS

We are constantly striving to provide ever better functionality and value-for-money in all our products and none more so than our very popular EZPC-Tower expansion systems for the A1200. All EZPC Tower systems have now been uprated to include:

- EZVGA internal scandoubler
- SMON video switcher and KMON keyboard switcher (for using the PC keyboard and monitor directly with your A1200 as an alternative to the Siamese RTG system)
- Unlimited internet access now included free of charge in all packages which have a modem included
- Hard drive upgrade option from 4.3GB to 17GB now just £99.95
- Faster PC processors on all models - please ring for details

And the best news of all - these increased specifications have been incorporated at no additional cost - making the EZPC route easily the most cost effective way of adding sophisticated expansion facilities to your A1200.

BACKUP CD BURNING HAS NEVER BEEN CHEAPER

We have just purchased a batch of 2x2x6 bare CD ReWriter mechanisms - suitable for towers priced at just £139.95, or £179.95 complete with MakeCD software and one rewritable 650MB disk. Gold (write once) blank CDs are just £10 for 10 when purchased with any CDWriter/ReWriter mechanism.

MAKE YOUR AMIGA NET READY WITH SANA II DRIVERS

Hydra Z2/Z3 Ethernet Cards now back in stock - just £99.95

A1200 PCMCIA ethernet cards and drivers just £79.95 (all A1200s need a CC_RESET fix to operate reliably with any PCMCIA ethernet card).

NOT TOWERED UP YET?
Now is the time to buy a MK4 EZTower

Until 30 September we are selling the MK4 Ready-to-Use EZTower for just £99.95 including power supply, LED adapter, floppy drive cable, faceplate and either a PC or A4000 keyboard adapter (PC keyboard £12.95, PC wireless infrared keyboard £39.95), genuine A4000 keyboard £34.95). And why not add a 24 speed CDROM, EZCD-XL buffered interface, cables and CDROM software for just £59.95.

AMIGA-NG UPDATE
Preserve your investment with an EZTower

Amiga have announced that the Amiga-NG, (target availability Q1/Q2 - 2000) will be available as a PC-format motherboard. It will therefore fit directly into any EZTower Mk4 alongside (and networked to) your existing A1200.

EZPC TOWER LINUX OPTION

For those who do not require the retargetable graphics capability of the Siamese system we will be shipping the EZPC tower systems with the option of Linux installed on the PC side (with drives etc networked to the Amiga as in Siamese-based EZPC systems) from 1 September 1999. As Linux forms the basis of the development system for the Amiga-NG, and subsequent versions of the Amiga-OE, this forms the ideal platform for developers and users alike. As an added bonus you will not need either Windows 9x or Siamese software licences - so the cost of ownership will be lower as well. Ring for further details.

MAGIC PACK UPGRADE SPECIALS WITH FREE HARD DRIVE

There are still a lot of Amiga users who call us who have only got basic floppy disk A1200s. If that applies to you - or to someone you know - then here is a very special deal. Get the full Amiga Magic Pack software (Wordworth 4SE, Photogenics 1.2SE, Personal Paint 6.4, Organiser, Turbocalc, Datastore 1.1, Pinball mania, Whizz and SCALA MM300) for just **£44.95**. This software is shipped fully licenced, ready to run on a 170mb 2.5" hard drive (but without backup diskettes or manuals - this is your responsibility). Although you only pay for the software the hard drive (which is otherwise unused) is yours to keep. Limited stocks are available. Offer expires 30 September 1999. Please specify whether you have 3.0 (V39.x) or 3.1 (v40.x) Kickstart ROMS when ordering.

FIVE NEW PRE-CONFIGURED MK4 EZ-TOWER MAGIC PACK SYSTEMS

Although the basic Amiga International desktop console Magic Pack still represents excellent value for money (see the box-out below) more and more customers have been asking us for new Amiga 1200s which are already EZTowered up. So here they are, five pre-configured systems to suit different applicants and budgets. All systems come with brand new KS 3.1/WB 3.1 disk and manuals, mouse, 2mb graphics memory and a fantastic productivity software bundle including Wordworth 4SE, Turbocalc 3.5, Datastore 1.1, Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, & Pinball Mania & Whizz games. Hard drive versions also come with Scala MM300 preinstalled.

A1200T-LE (A1200T - Light Edition)
This is the best choice for existing A1200 users who want to upgrade to a new Workbench 3.1 machine and add their existing hard hard drives and other peripherals and accessories themselves.

A1200T-PS4 (A1200T ProSystem-4)
The A1200 Professional System 4 comes complete and ready-to-run with 3.2GB hardware, 24-speed CDROM, EZCD-XL buffered interface, '030/40 accelerator with MMU, FPU, 8mb and a CDDA/Amiga audio mixer output. Other options available - see table on the right.

A1200T-PS4/XL (A1200T ProSystem-4 XL)
This system is configured as for the A1200T-PS4 but with a faster CDROM and an 040/28mhz accelerator with FPU, MMU, 16mb memory and a pair of mains-powered 240w PMPO stereo speakers.

A1200T-SE (A1200T - Studio Edition)
This is the system for serious Amiga-based multimedia work. It is configured as the A1200T/PS/4XLS but comes with an LS120 drive (reads & writes 1.44 PC diskettes & 120MB Amiga/PC cartridges), an EZVGA scandoubler/flickerfixer and a 15" SVGA digital monitor.

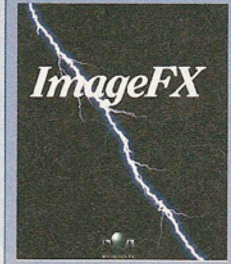
A1200T-SE/XL (A1200T - Studio Edition XL)
This is the ultimate A1200 multimedia tower system. It s configured as the A1200-SE system above and uprated to include a CDReWriter with MakeCD software and 10 blank CD-recordable disks, a 4.3GB hard drive, an 060/66 accelerator with 32mb memory, a 17" SVGA monitor, a Prelude 1200TW full duplex hi-fi sound card and software and a 600 watt PMPO amplified sound system with stereo speakers and subwoofer.

System Components A1200T -	LE	PS4	PS4/XL	SE	SE/XL
Mk4 EZTower	Yes	Yes	Yes	Yes	Yes
PC keyboard & keyboard adapter	Yes	Yes	Yes	Yes	Yes
Upgrade to A4000 k/b and k/b adapter	+£20	+£20	+£20	+£20	+£20
A1200 motherboard with K/S 3.1/WB3.1	Yes	Yes	Yes	Yes	Yes
Sony floppy drive & EZDF0 interface	Yes	Yes	Yes	Yes	Yes
Magic Pack productivity software + 2 gamesYes	Yes	Yes	Yes	Yes	
Upgradeable to full EZPC Tower system	Yes	Yes	Yes	Yes	Yes
Scala MM300 multimedia software	n/a	Yes	Yes	Yes	Yes
EZCD-XL 4-device buffered interface	n/a	Yes	Yes	Yes	Yes
EZTower CD audio/Amiga audio mixer	n/a	Yes	Yes	Yes	Yes
3.2GB Tower drive wit WB3.1 installed	n/a	Yes	Yes	Yes	n/a
4.2GB Tower drive with WB3.1 installed	n/a	+£20	+£20	+£20	Yes
LS120 with 1 cartridge & EZIDE s/w	n/a	+£80	+£80	Yes	n/a
CDRom / CDReWriter + 10 gold disks	n/a	24x	32x	32x	CDRW+GD
1230/40 MMU FPU accelerator - 8 MIPS	n/a	Yes	n/a	n/a	n/a
1240/28 MMU FPU accelerator - 21 MIPS	n/a	+£60	Yes	Yes	n/a
1240/40SE MMU FPU accelerator - 30 MIPSn/a	+£100	+£40	+£40	n/a	
1260/66 MMU FPU accelerator - 51 MIPS	n/a	+£250	+£185	+£185	Yes
Memory included (ring for upgrade prices)	n/a	8MB	16MB	16MB	32MB
EZVGA scandoubler with flickerfixer	n/a	+£80	+£80	Yes	Yes
15" SVGA monitor	n/a	+£110	+£110	Yes	n/a
17" SVGA monitor	n/a	+£190	+£190	+£75	Yes
Prelude1200TW hifi full duplex sound card	n/a	+£140	+£140	+£140	Yes
Amplifier (PMPO watts), speakers (+ subwoofer)	n/a	n/a	240W	240W	600W+SW
Cost with options as specified:	£299.95	£549.95	£669.95	£999.95	£1799.95

If you don't have the need or the space for an A1200 Tower System then we can still supply brand new A1200 desktop console Magic Packs - either floppy drive only, or upgraded to a 170mb hard drive, EZCD-XL buffered interface and external CDROM socket with CDROM interface.

A1200 170MB HD desktop console Magic Pack - £248.95

A1200 diskette desktop console Magic Pack - £179.95



OFFICIAL! Eyetech is now the exclusive UK distributor of Nova Design products

Nova's product range includes Image FX - probably the best image processing package of all time available for the Amiga - the Aladdin 4D solid modelling and rendering package and Wildfire animation effects and sound integration package.

If you have read Kermit Woodall's series in recent issues of AF then you'll know how powerful IFX4 is, and why we are so pleased to have been chosen as its exclusive UK distributor by Nova Design. As an introductory offer you can get 15% off the prices quoted in this issue for any of Nova Design's products (including add-ons and upgrades - proof of purchase required) until 30 September 1999 by sending in the coupon from the editorial section of this copy (128) of AFormat.

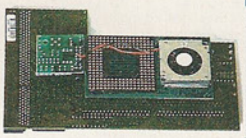
EZBUS-Z4 ZORRO ADAPTER IS HERE!

Sorry for the delay but you'll find its worth the wait -

- Properly terminated Zorro bus
- 4 clock ports
- Standard AT style power input
- 5 x Zorro 2 slots, one with video slot (video slot adapter needed)
- Optional 19 MB/s 'Fast Zorro 2' mode
- 2 x 19 MB/s Z4 slots for graphics card and/or fast EIDE controller

And the price - just £129.95 until 30 September 1999 (£149.95 thereafter).

LIMITED EDITION 1260/75LC 60 MIPS ACCELERATOR
Exclusively available from Eyetech - at a price lower than that of the 1260/50!



The fastest 680x0 accelerator for any Amiga is now available (exclusively) from Eyetech. Rated by Sysinfo at around 60 MIPS the accelerator is suitable for both desktop and towered A1200s. The integer processing speed of the 75MHz 060 is - in Simon Goodwin's words - 'awesome', being up to 2200% faster than that of an an 030/50! A.I. recommend an '060 processor to get the most out of OS 3.5 - see separate news story below.

The 1260/75 LC comes with a full MMU but no FPU as no internal or external Motorola FPU module will work at these speeds . As most Amiga software is supplied with non-MMU versions, these should still easily out-perform the FPU versions on a lesser processor in all but a handful of cases. And now for the best news of all. You can have the fastest O/S-compliant Amiga on the planet for just £249.95! (Optional trade-in to MMU 060 within 30 days).

NEW SPEC phase 5 PPC G3/G4 accelerators for the A1200 available this Autumn - official!

As we go to press, phase 5 have finally got off the fence and announced that they will definitely be manufacturing top end G3/G4 power PC boards for the A1200. And the specifications are awesome:

- socketted processor allowing future user-installable upgrades
- up to 1GB main memory via 2 x 100 MHz SDRam (144pin DIMM) sockets
- 2 mini PCI connectors for SCSI, I/0 or expansion or CybervisionNG graphics card (see below)
- 3rd mini PCI slot for additional cards or high speed active bus expansion
- 2 independent 12mbit USB channels with external connections
- 2mb upgradable firm ware via flash ROM
- full OS 3.5-compliant 680x0 emulator software to run your existing
- Amiga applications and software at amazing speed
- Choice of 300MHz or 400MHz PPC750 cpu with 1mb backside cache

The associated Cybervision NG card builds on the success of the high performance Bvision/Cybervision cards to offer:

- 32mb display and texture memory
- blindingly fast 2D/3D graphics chip with 128 bit 3D graphics engine
- supports resolutions up to 1920x1200 in 32 bit colour (4.3 giga-colours) at 72Hz refresh rate
- built-in video hardware accelerator which supports full screen, full-frame DVD video playback

We have already pre-ordered the full range of these exciting new products and will receive the first shipments to arrive in the UK. phase5 have given a target availability date of late September 1999, but more realistically - based on past experience with manufacturers time estimates - we would expect to be shipping in volume during October 1999.

Pricing has not yet been finalised, but we anticipate the G3/300 to be lower in price than the current top-of-the-range Blizzard PPC/240/60/50, with the G3/400 costing around being around 30% more. The Cybervision NG is expected to be around the same price as the current 8MB BVision graphics cards.

NEW!! ENGRAVED AMIGA 5.25" TOWER FACEPLATES FOR JUST £4.95!

A1200 EZTower systems, EZPC Tower systems, Magic Packs and accessories

EZPC-PRO & NEW ENTRY-LEVEL EXPANSION SYSTEMS FOR YOUR A1200

3 pre-configured EZPC-Pro systems to suit different applications and pockets

The EZPC system works by making the PC motherboard act as a slave processor to your A1200 - looking after the the operation of the systems accessories whilst you and your Amiga get on with creative work. (You can of course use the PC as a computer in its own right if you really insist!)

Its also important to understand that EZPC A1200 expansion system is based on a real Amiga and is not at all comparable with other PC-only systems running a clever, but slow, Amiga emulator as a PC application.

In fact there are such a range of applications that the EZPC system can open up to an Amiga user that we have introduced three systems pre-configured for different types of use. These are:

A1200 EZ-PC TOWER-HSE (Home Studio Edition) - £999.95

The HSE configuration comes complete with TV tuner with cut-and-paste teletext facilities, 24-bit video frame grabber and video clip capture card, 30 bit colour scanner, 56K modem and unlimited internet access at local call rates - as well as the standard EZPC system components

A1200 EZPC TOWER-DVE (Digital Video Edition) - £1369.95

The DVE is fitted with a purpose-designed, hardware-based MJPEG non-linear video editing suite for home/semi-professional video production. It also comes with built-in CD Writer/ReWriter (with drag-and-drop CD writing software) for producing your own audio and video CDs.

A1200 EZPC TOWER-XLS - £1995.95

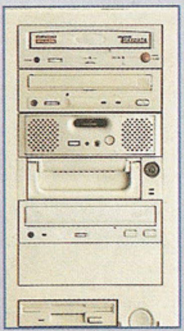
This must be the ultimate creative multimedia expansion platform for your A1200. It comes equipped with non-linear video editing hardware and software, A4 30-bit flatbed scanner, DVD ROM hardware & MPEG 2 decoder (for DVD video playback), CD ReWritable drive, 15" Colour Monitor, 56k data/fax/voice modem with voicemail and internet software - and much more.



The EZPC Tower system showing the A1200, the PC rear sockets, card slots and removable side panels

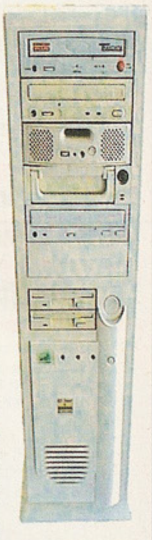
A1200 EZPC TOWER-3.1+ - £395.95

Finally, if your A1200 is feeling a bit tired we can supply your chosen EZPC Tower system with a brand new Kickstart 3.1 A1200, complete with Magic Pack software, 24 Speed CDROM, 3.2 GB hard drive (with W/b & Magic Pack software preinstalled), EZCD Mk4 interface and EZIDE software ready installed and connected up. All you need to do is to slot in your existing accelerator, fit your old hard drive into the external mounting drawer provided (see photo) switch on and start using your new A1200 EZPC Tower system.



All these three packs are designed for you to fit your existing A1200 in the EZPC Tower and connect it up. This normally takes around an hour, but if you would prefer to receive your system ready to use, we can arrange to collect your Amiga, do the work for you and ship your new system back all ready to plug-in to mains and phone outlets! Please ring for details.

EZPC-Pro Tower Model	HSE	DVE	XLS
EZPC-Tower/250W psu/PC mouse/HD floppy	Yes	Yes	Yes
EZ-Key k/b adapter PC k/b & rem switch	Yes	Yes	Yes
BMon/KMon video & k/b switch	Yes	Yes	Yes
Ultra DMA hard drive 4.3GB	Yes	Yes	Yes
Upgrade to 17.2GB UDMA Drive	+£99.95	+£99.95	+£99.95
32-speed CDROM	Yes	Yes	n/a
DVD-ROM (inc 20xCDROM capability)	n/a	+£79.95u/g	Yes
CDReWriter (inc 16xCDROM) & s/w	n/a	Yes	Yes
10 x blank CDR's 650MB	n/a	Yes	Yes
100Mhz bus PC motherboard w/64MB	Yes	Yes	Yes
High perf high res 3D Gfx card w/MPEG-1	Yes	Yes	Yes
TV/teletext/framegrabber	Yes	n/a	n/a
Hardware MJPEG Video Editor	n/a	Yes	Yes
Hardware MPEG-2 Video decoder	n/a	+£59.95	Yes
CD-quality sound card with MIDI	Yes	Yes	Yes
Software controlled Amiga/PC audio mixer	Yes	Yes	Yes
Internal 60W PMPO monitor speakers	Yes	Yes	Yes
Siamese RTG2.5 software	Yes	Yes	Yes
Amiga PCMCIA & PC ethernet cards/cabs	Yes	Yes	Yes
30-bit high res A4 flatbed scanner	Yes	+£59.95	Yes
Internal 56k data/fax/voice modem	Yes	+£49.95	Yes
Unlimited access Internet package	Yes	inc. with above	Yes
15" SVGA monitor	+£109.95	+£109.95	Yes
17" SVGA monitor	+£189.95	+£189.95	+£99.95
Win 9.x/Lotus Smartsuite bundle	+£99.95	+£99.95	Yes
Miami Amiga TCP/IP stack	+£24.95	+£24.95	+£24.95
Cost with options as specified	£999.95	£1369.95	£1999.95



TEL: +44 (0)1642-713185

ENTRY LEVEL EZPC TOWER SYSTEMS NOW AVAILABLE FROM JUST £599.95

UPGRADE PACKS FOR EXISTING EZTOWER USERS JUST £499.95

The EZPC-Pro Tower configurations (featured on the next page) have produced a tremendous level of interest - and orders - from professional and serious home Amiga users alike. We have also had many requests for a lower cost, entry level solution, from those Amiga users whose budget is more modest. So here it is - the EZPC-SLE - giving most of the potential of the EZPC-Pro systems (featured opposite) in an affordable (but expansible) package.

The EZPC-SLE specification is as follows:

- Full EZTower Mk4 with removable side panels PSU (not with upgrade kit)
- PC Keyboard & EZKey-SE/PC adapter & 250w keyboard (not with upgrade kit)
- 100MHz-bus motherboard with 4x UDMA IDE ports
- 333M II CPU with 1MB cache memory
- 2 x high speed serial & 1 x EPP parallel port
- 32MB 100MHz memory
- 8MB SVGA SIS Graphics
- 16 bit 3D sound record and playback
- 3.2GB UDMA hard drive
- 24 speed CDROM
- PC mouse
- Remote Amiga/PC keyboard switch
- Siamese 2.1 RTG serial Amiga-PC networking software and cable.
- TV/Teletext tuner with 24-bit still & video capture and Amiga composite video input
- EZVGA-INSD internal scandoubler and BMon switch to display your Amiga output on a PC screen

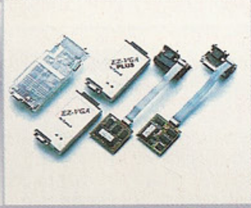
You will also need to have Windows 9x operating system and an SVGA PC monitor - see the panel on the EZPC-Pro Tower system panel for further information.

A collection, installation and delivery service is also available - please ring for details.

EZVGA Scandoublers & Flickerfixers from just £48.95

All scandoublers/flickerfixers allow the Amigas 15Khz modes to display on a PC SVGA monitor. Flickerfixers allow 15KHz interlaced screens to be displayed, rock-steady, at twice the standard vertical resolution. Other modes are passed through unaltered.

EZVGA-Mk2	Compact, external, upgradeable scandoubler (to full FF)	£69.95
EZVGA-Plus	Compact, external scandoubler with full FF	£99.95
EZVGA-SEFF	Economy external scandoubler with full FF	£89.95
EZVGA-INSD	Internal A1200/A4000 scandoubler (not upgradeable)	£48.95
EZVGA-INFF	Internal A1200/A4000 scandoubler with full FF	£79.95
EZVGA-INFF2	Internal A1200/A4000 s/doubler with full FF for BMON	£89.95



AMIGA SVGA MONITORS

For use with Amiga Zorro & the new PPC Graphics Cards, Scandoublers & the EZPC-Tower system



- Special pricing on scandoublers/flickerfixers bought with monitors from just £45 extra
- Monitor specifications are quoted as the highest vertical refresh rate at the maximum resolution. Higher refresh rates (>=72Hz) at lower resolutions are available and give a more visually relaxing display.
- Scandoubler/flickerfixers have resolutions governed by the Amiga's AA/AGA chipset and are restricted to a maximum vertical refresh of 73Hz and a maximum usable resolution of 724Hx566V.
- The PPC BVision supports 1600x1280@72Hz. You will not gain the full benefit of this superb graphics card without a monitor that supports this resolution at that refresh rate.

14" SVGA 0.28DP, 1024Hx768V	@ 60Hz	£89.95
15" SVGA 0.28DP, 1024Hx768V	@ 60Hz	£119.95
17" SVGA 0.28DP, 1280Hx1024V	@ 60Hz	£199.95

Engineering workstation grade monitor, 160MHz, Diamondtron tube:

17" SVGA 0.25DP, 1600Hx1280V	@ 75Hz	£399.95

SPECIAL OFFER 15" MONITORS FROM £99.95 - ring for details

6 models of BMON are available from £39.95 - send for details

The BMon takes two video inputs - one from an Amiga's AA chipset (either directly or via a scandoubler/flickerfixer) and the other from a graphics card (BVision, Cybervision, Picasso, Ateo bus card etc) - and switches your SVGA or multisync monitor between them. The BMon uses high quality video switchers so - unlike conventional switchboxes - there is no significant loss of quality from either source. It can also be used - in its SMon form - for switching an SVGA monitor between a PC and Amiga system. As standard the BMon accepts input from a BVision or Cybervision card and from an Eyetech EZVGA internal flickerfixer-2 . It is manually switched by a remote miniature toggle switch positioned - for example - on the front panel of a tower system. The KMon switches keyboard output in an Amiga/PC dual configuration using the same control signals.

The New Eyetech Mk 4 EZTower System - from just £79.95

"This is definitely one of the easiest solutions to building your own Tower" - Amiga Format

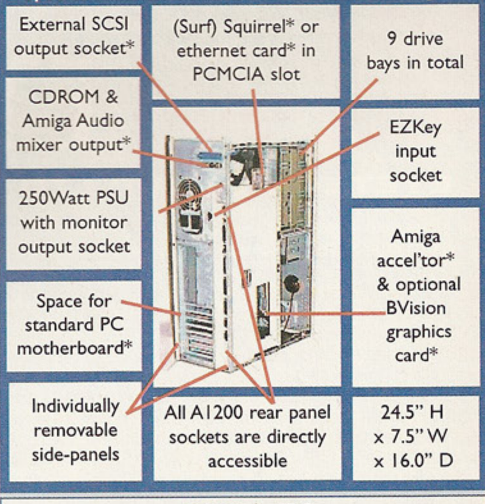
"The Eyetech Tower offers clever solutions with a Velcro easyfit mentality" - CU Amiga

- The easiest way to re-house your A1200 by far
- Expand your system with EZPC (EZTower Mk4) or Zorro slots (EZTwr Z4)
- 250 W PSU with PC and Amiga power connectors
- No expensive PCMCIA right-angle adapter required
- Available in 5 models to suit different skills and budgets
- The only tower allowing both PC & A1200 in one case

	Backplate Kit	DIY* EZTower	Full EZTower
DFO: face plate & ribbon cable	Yes	Yes	Yes
Custom backpanel w/SCSI, audio KOs	Yes	Yes	Yes
A1200 power & LED adptrs	Yes	Yes	Yes
CE-approved metal PC case	n/a	Yes	Yes
No of bays/PSU capacity	n/a	9/250W	9/250W
Directly accessible PCMCIA slot	Yes	Yes	Yes
DIY assembly instructions	Yes	Yes	n/a
Installation instructions	Yes	Yes	Yes
PC board/Siamese compatibility	Yes	Yes	Yes
Assembled & A1200-ready	No	No	Yes
Eyetech installation option	No	No	Yes
Cost with options as specified	£39.95	£79.95	£99.95
With EZKey/PC k/b (w/A4k k/b+£20)	n/a	£99.95	£119.95

*With the DIY EZ-Tower you have to remove the PC tower back panel and some internal shelving and fix the new back panel in place

* Optional extra not included in standard EZTower system



EZBus-Z4

A new Zorro adapter from Eyetech featuring regular Z2 slots and 2x 19MB/s local bus connectors

EZTower-Z4 - A new EZTower specifically designed to take the EZbus-Z4

EZTowerZ4, k/b adapter, PC k.b & EZBus-Z4	£249.95
As above - introductory price - advance orders	£199.95

Interfaces and Adapters: EZ-Key, DIY Tower Components

ADPT-EZK2	Mk 2 Amiga/PC k/b adpt -> A1200 kbd direct connect	28.95
ADPT-EZK2-W95	Mk2 Amiga/PC k/b->A1200 dir connect +Win95 kbd	38.95
ADPT-EZSE-A	EZKey-SE Amiga 5p DIN k/b adapter for A1200/A600	18.95
ADPT-EZSE-A/K	EZKey-SE Amiga + 6p->5p adptr + A4000 kbd bundle	48.95
ADPT-EZKSE-P	EZKey-SE PC 5p DIN k/b adapter for A1200/A600	24.95
ADPT-EZKSE-P/K	EZKey-SE PC k/b adapter for A1200/A600 + Win95 kbd	34.95
ADPT-HD-2/3	2.5"/44way->3.5"/40w+4w adpt & 2.5->3.5 mtg bracket	11.95
ADPT-HD-3/5	3.5" Zip/SyQuest/FDD/HD brkt/pl ->5" bay	5.95
ADPT-KBD-5P6P	Amiga/PC k/b adapter 5p din-F ->6p m/d-M	5.95
ADPT-KBD-6P5P	Amiga/PC kbd adapter 6p mindin-F ->5pd-M	5.95
ADPT-DF0-FP	Tower faceplate adapter for A1200 int FD	4.95
ADPT-TWR-AF5IN	Engraved 'AMIGA' faceplate for 5.25" tower bay	4.95

Interfaces and Adapters: A1200 Ethernet, SCSI

ADPT-PCM-ETH-C	PCMCIA ethernet card with Amiga/PC drivers	79.95
ADPT-PCM-ETH-H	Hydra PCMCIA ethernet card with Amiga drvrs	129.95
ADPT-PCM-ET-Z2	Hydra Z2/Z3 Ethernet Card	99.95
CAB-UPT-X60C	Crossed twisted pair/RJ45 for Sisys 60cm	6.95
CAB-ETH-3M	Ethernet Coax + 2 x terminator 3m	9.95
ADPT-SCS-CSQR	Classic Squirrel PCMCIA SCSI i/f 50pCM	69.95

I/F & Adapters: Flickerfixers, Genlocks, Video Digitisers VGA Adapters, Monitor Switches, Monitor Leads

ADPT-VGA-BV8M	BVision 8MB gfx card for A1200 (needs PPC)	159.95
ADPT-VGA-BMON/F	SVGA Monitor Switcher - BVision/CVision & EZVGA INFF2	39.95
ADPT-VGA-BMON/V	SVGA Monitor Switcher - BVision/CVision & 15pHD In/Ex SD/FF	44.95
ADPT-VGA-BMON/A	M/Sync Monitor Switcher - BVision/CVision & 23p RGB socket	44.95
ADPT-VGA-SMON/F	SVGA Mon Switch - Ateo/Picasso 15pHD Gfx & EZVGA INFF2	44.95
ADPT-VGA-SMON/V	SVGA Mon Switch - Ateo/Pic'o 15pHD & 15pHD In/Ex SD/FF	49.95
ADPT-VGA-SMON/A	M/Sync MonSwitch - Ateo/Pic'o 15pHD & 23p RGB socket	49.95
ADPT-VGA-AMON	Auto Amiga/CV64-3D m/sync monitor switch	39.95
ADPT-VGA-M2SD	EZ-VGA-Mk2 compact external s/doubler PLL u/gradable	69.95
ADPT-VGA-PLFF	EZ-VGA-Plus compact external SD+FF 23F-15F PLL	99.95
ADPT-VGA-SDUG	SDBL2 to SD+flickerfixer u/g	40.00
ADPT-VGA-INSD	EZ-VGA internal A1200 s/doubler non-upgradable	48.95
ADPT-VGA-INSD2	EZ-VGA internal A1200 s/doubler for use with BMON	59.95
ADPT-VGA-INFF	EZ-VGA internal A1200 scandoubler w/ flickerfixer	79.95
ADPT-VGA-INFF2	EZ-VGA internal A1200 SD+FF for use with BMON	89.95
ADPT-VGA-SEFF	EZ-VGA-SE scandoubler+flickerfixer 23F-15F Xtal	89.95
ADPT-VGA-15M9F	Adapter from 15p HD-M VGA to 9pD-F	9.95
ADPT-VGA-9M15F	Monitor adapter 9p D-F to 15p HD-M	9.95
ADPT-VGA-15M23M	VGA 15pHD-M -> 23pD-M Amiga RGB adapter	14.95
ADPT-VGA-UNBF	Amiga 23pD-F ->15pHD-F VGA adapter	12.95
ADPT-VGA-BUF	Amiga 23pD-F ->15pHD-F buffered adapter for A4000	16.95
ADPT-PGB-24RT	ProGrab 24-RT Amiga par. port video digitiser (no psu)	94.95
ADPT-PGB-PSU	PSU for ProGrab 24-RT	9.95
ADPT-GLK-COMP	EZ-Gen composite video Genlock for A1200	69.95

Interfaces and Adapters: A1200 Sound cards & Software

INT-AUD-PL12-DT	Prelude1200 for A1200 DT console only	129.95
INT-AUD-PL12-TW	Prelude1200 for Tower w/ribbon cble/audio I/O brkt, CD i/f	149.95
INT-AUD-PL12-UG	Upgrade node from PL12-DT to PL12-TW	20.00
INT-AUD-PLZ2	Prelude ZorroII 16-bit full duplex sound card	189.95
ASW-SMP-OP	Samplitude Opus 16 channel, virtual projects, FFT filtering	149.95
ASW-SMP-LE	Samplitude-LE 4 channel , virtual projects, FFT filtering	49.95

I/F & Adapters - IDE/ATAPI & Software

INT-IDE-FLYR	Elbox 4-dev 32 bit high perf buf'd A1200 IDE i/f	54.95
INT-12I-EZCD4	Mk4 4-dev buf IDE i/f w/AIPU w/A1200 CDROM s/w	28.95
INT-12I-EZCD4/C	Mk4 4-dev buf IDE i/f w/3x40, 2x44 13cm cabs, CD s/w	38.95
INT-12I-EZCD4/CE	Mk4 4-dev buf IDE i/f w/3x40, 2x44 cabs, EZIDE	48.95
INT-12I-EZCDSE	Economy 4-dev buf IDE i/f w/A1200 CDROM s/w	18.95
INT-12I-EZCDSE/C	Econ 4-dev buf IDE i/f w/3x40, 2x44 13cm cabs, CD s/w	28.95
INT-12I-EZCDSE/CE	Econ 4-dev buf IDE i/f w/3x40, 2x44cabs, EZIDE	38.95
INT-4KI-CD4	4-device EIDE i/f for A4000 w/CDROM s/w	18.95
DVR-EZIDE	EIDE/ATAPI HD/CDROM/ZIP/LS120/SyQst drvr	34.95
DVR-EZIDE-CU	P/x upgrade to EZIDE from competitive product	14.95
DVR-EZIDE-SP	EIDE/ATAPI enhancer/CDROM Software Bundle Price	9.95

I/F & Adapters-Serial, Parallel, Floppy, Clock port expanders

INT-SER-PTJR	PortJunior Mk2 - 460KB serial i/f for A1200	39.95
INT-12I-PTJR-SP	PortJunior Mk2 hi-speed ser i/f pur with CamControl s/w or KBPlus	30.00
INT-IOBL-S12	IOBlix 12S - 1.5Mbps serial i/f for A1200	49.95
INT-IOBL-P12	IOBlix 12P - EPP parallel port i/f for A1200	49.95
INT-SER-PTPL	PortPlus Mk2 - 2x 460KB ser + 1x 800KB par i/f for A1200	69.95
INT-IOBL-Z2	IOBlix Z2 - 4x1.5Mbps ser + 1x EPP par port ZorroII	89.95
INT-IOBL-Z2PX	1x EPP par port expan for INT-IOBL-Z2 (to 4xs+2xP)	19.95
INT-CLK-EXP	ClockUp 4-way clock port expander for A1200	19.95
INT-FDD-DF0	Interface for std Sony FDD for DF0 880KB	9.95

Cables & Cable Adapters: Audio & Mains

CAB-AUD-CD	CDROM invt'd T audio cab .6m + 2xRCA plg	9.95
CAB-AUD-MIX	RCA(phono)-M -> RCA-M+RCA-F 'Y' mixer lead 1.8m	6.95
CAB-AUD-2M2M	RCA(phono)-2xM -> RCA2xM stereo lead 1.8m	4.95
CAB-AUD-MJ/PH	3.5mm st minijack->2xphono-M plugs 1.2m	5.95
ADPT-AUD-MJF/2PM	3.5mm stereo jack to 2 x phono male	3.95
ADPT-AUD-RCA	RCA(phono)-M -> 2xRCA-F adapter 'Y' mixer	2.50
ADPT-AUD-RCA-G	RCA(phono)-M ->2xRCA-F gold plated adapt 'Y' mixer	3.50
CAB-IEC-1.5M	AC power cable 13A plug -> IEC skt 1.5m	2.50
PLUG-IEC	Rewirable IEC monitor plg for PSUs/MT/DT	4.95

Cables & Cable Adapters: Serial, Modem, SCSI, Printer

CAB-SER-EX2M	DB25-M -> DB25-F RS232 extn cab 2m for modem	7.95
CAB-SER-EX50C	DB25-M -> DB25-F RS232 extn cab 0.5m for modem	6.95
CAB-SER-NUL2M	Null modem cable w/ D9F & D25F at each end 2m	9.95
CAB-SER-NUL5M	Null modem cable w/ D9F & D25F at each end 5m	14.95
CAB-SER-NUL10M	Null modem cable w/ D9F & D25F at each end 10m	19.95
ADPT-SER-25F9M	25p-F to 9p-M serial RS232 adapter	4.95
ADPT-SER-25M9F	25p-M to 9p-F serial RS232 adapter	4.95
ADPT-SER-9M9M	9p-M to 9p-M serial RS232 gender changer	4.95
ADPT-SER-9F9F	9p-F to 9p-F serial RS232 gender changer	4.95
ADPT-SCS-50/50CF	Centronics 50p-F to Centronics 50p-F (for Squirrel)	14.95
CAB-SCS-25D/50C	SCSI cable DB25-M to Cent50-M 1m	9.95
CAB-SCS-25D/25D	SCSI cable DB25M to DB25M mac type 1m	9.95
CAB-SCS-50C/50C	SCSI cable Centr50M to Centr50M 1m	9.95
CAB-SCS-50H/50C	SCSI-2 cable 50h/pDM to Centr50M 1m for PPC	19.95
CAB-SCS-50H/25D	SCSI-2 cable 50h/pDM to 25D-M 1m for PPC	19.95
CAB-PAR-FULL	Bidirectional printer cable all pins connected	9.95

Cables & Cable Adapters: VGA, Keyboard, Switchboxes, Cables, Scart Cables (See also BMON, SMON autoswitches above)

ADPT-SW-S/K	Dual monitor & k/b switchbox	14.95
ADPT-SW-S/K/M	Dual monitor, k/b & mouse switchbox	19.95
CAB-KBD-MF	5p DIN M - 5p DIN F k/b ex cable 1.2m	7.95
CAB-KBD-MM	5p DIN M - 5p DIN M k/b cable 1.2m	7.95
CAB-VGA-MF	15p DM-HD - 15p DF-HD VGA ext cable 2m	9.95
CAB-VGA-MM	15p DM-HD - 15p DM-HD VGA cable 2m	9.95
ADPT-SCAR-CMP	Amiga comp video (RCA)+2xAudio to SCART	12.95
ADPT-SCAR-RGB	Amiga 23p+2xRCA to RGB TV SCART + audio	12.95

Cables: HD, CDROM, Floppy, Clock Port Data, A1200 HD Power

CAB-PD-40F44F	2.5" (44F) to 3.5" (40F) data cab adapt for A1200 30cm	9.95
CAB-PD-2F	Power splitter floppy drive to hard drive + floppy	9.95
CAB-PD-30C	44 to 40way 3.5" HD data & pwr cabs - A1200	14.95
CAB-HD-KIT	A1200 full 3.5" hard drive fitting kit	24.95
CAB22-2W-10C	22way-F x2 A1200 clock port cable 10cm o/a	5.00
CAB34-2W-50C	34way-F x2 FDD ribbon cable for tower 50cm	9.95
CAB40-2W-20C	40 way IDE cable 2 connector 20cm	5.00
CAB40-3W-1M	40Way IDE/HD/CD cable 3 connector 1m o/a len	9.95
CAB40-3W-60C	40w-F x3 HD/CD/IDE cable 20+40=60cm o/a	9.95
CAB40-CUST	Custom cable 3x40way IDE up to 1.5m	19.95
CAB44-2W-13C	44way (2.5" HD) cable 2 connector, 13cm o/a	9.95
CAB44-2W-60C	44way (2.5" HD) cable 2 connector, 60cm o/a	19.95
CAB44-3W-12C	44way (2.5" HD) cable 3 connector, 12cm o/a	12.95
CAB44-3W-24C	44way (2.5" HD) 7+17cm,3 connector,24cm o/a	14.95
CAB50-CUST	Custom cable 50way SCSI 60cm w/4 x Cent or IDC con'trs	19.95

Cables: HD, CDROM, Floppy Power Splitters-Tower Systems

CABPW-1W-1F	Power converter cab HD-M -> FD-F	4.95
CABPW-2W-1H1F	HD/FD power splitter HD-M->1xHD-F/1xFD-F	6.95
CABPW-2W-2F	FDD power splitter 4pM->2xFD-F	6.95
CABPW-2W-2H	HD/CD power splitter 4p-M ->2x 4p-F 15cm	6.95
CABPW-3W-2H1F	HD/FD power splitter HD-M->2xHD-F/1xFD-F	8.95
CABPW-3W-3H	HD power splitter HD-M -> 3xHD-F	8.95
CAB-HD-PWXTN	4p-M -> 4p-F HD/CD power cab ext 90cm	9.95
CAB-HD-FD/4	23p-M-floppy -> 4p-F HD/CD power 90cm	9.95

ISDN Term Adapters, 56k Modems & Net Access Bundles

even lower prices

NET-ISP	[illegible] setup/support/unlimited usage/no ongoing net [illegible] charges (0845 call charges only) with 25MB web [illegible] email addresses, 90 days free net support.	29.95
NET-EYE-1	[illegible] ISDN T/A + NET-ISP as above	129.95
NET-EYE-3	[illegible] T/A Netconnect 2 + NET-ISP	169.95
NET-EYE-5	[illegible] fax/voice modem + NET-ISP as above	89.95
NET-EYE-7	[illegible] fax/voice mdm, Netconnect 2 + NET-ISP	99.95
MOD-56K	56K Voice/Data/Fax Modem External inc serial cable	69.95
MOD-ISDN	128K External ISDN terminal adapter inc serial cable	99.95
NET-REF	Internet Reference Book by D. Winder	2.00
NET-NC2	Netconnect 2.2 software	49.95

CDROM Systems including EZ-Tower & MT/DT Bundles

CD-SE-24X	CDPlus-SE system 24 speed with CDROM s/w	74.95
CD-SE-32X	CDPlus-SE system 32 speed with CDROM s/w	84.95
CD-DT/MT-24X	CDPlus Desktop/Minitower 24 x with CDROM s/w	94.95
CD-DT/MT-32X	CDPlus Desktop/Minitower 32 x with CDROM s/w	104.95
ADPT-AUD-CDSE	CDPlus-SE A1200/CD audio mixr/adapter	14.95
CAB44-CD-13C	44way (2.5" HD) cable purch with CD/HD 13cm	6.00
CAB40-DDC	A1200 IDE skt adptr 40F-40M with mtgs 15cm	9.95
CD24-BARE	Bare 24 speed CDROM mechanism for twr/A4k	34.95
CD32-BARE	Bare 32 speed ATAPI CDROM mechanism for twr/A4k	44.95

CDWriter/ReWriter Systems inc. EZ-Tower & MT/DT Bundles

CDR-BARE-2X8	EZWriter Mechanism (no MakeCD)	169.95
CDR-IN-2x8	EZWriter 2/8x with MakeCD for A4000,Tower	204.95
CDR-SE-2x8	EZWriter-SE external 2/8x with MakeCD	249.95
CDR-DT/MT-2x8	EZWriter Desktop/Minitower 2/8 speed with MakeCD	269.95
CDR-PL-2x8	EZWriter-Gold external 2/8x with MakeCD	279.95
CDRW-BARE-226	EZReWriter Mechanism (no MakeCD)	139.95
CDRW-IN-226	EZReWriter 2x2x6 w/MakeCD for A4k,Twr	179.95
CDRW-SE-226	EZReWriter-SE external 2x2x6 w/MakeCD	219.95
CDRW-PL-226	EZReWriter-Gold external 2x2x6 w/MakeCD	299.95
CDR-CDSE-UG	EZCD-SE+40+44way cabs + CDROMs/w w/CDR	20.00
CDR-CDM4-UG	EZCDMk4+40+44way cabs + EZIDE s/w w/CDR	30.00
CDR-CDFL-UG	IDE-Flyer high-speed IDE i/f, s/w, cabs purch w/CDR	50.00
CDR-DSK-10	Recordable CD media (WORM) 650MB x10	14.95
CDR-DSK-10-SP	Recordable CD media 650MBx10 pur w/EZWriter	10.00
CDRW-DSK	Single CDrewritable disk 650MB	9.95
CDRW-DSK-SP	Single CDrewritable disk 650MB pur w/EZReWriter	5.00
DVR-MCD-TAO-P	MakeCD TAO (P) Amiga CD rec s/w w/ATAPI	38.95

EZTowerZ4 Systems, Z4 busboard expansions

CASE-DTZ4	DIY EZTower-Z4 250W PSU, LED adpt, FD cab/fp	89.95
CASE-DTZ4-PL	DIY EZTower-Z4 250W PSU, EZKey, PC kbd, FD cab/fp	109.95
CASE-DTZ4-PLZ4	DIY EZTwr-Z4, EZKey, PC kbd, FD cab/fp Z4 slots	239.95
CASE-RTZ4	Ready-to-Use EZTwr-Z4 250W PSU, LED adpt, FD cab/fp	109.95
CASE-RTZ4-PL	RTU EZTower-Z4 250W PSU, EZKey, PC kbd, FD cab/fp	129.95
CASE-RTZ4-PLZ4	RTU EZTwr-Z4 250W, PC kbd/adpt, FD cab/fp, Z4 slots	259.95
ADPT-Z4	Z4 adapter for A1200 5xZ2, 2xZ4, 2xclock ports	149.95
ADPT-Z4-SP	Z4 adapter as above - ADVANCE ORDERS	129.95
CASE-FT-A4KUG	EZ-Tower upgrade from PC to A4000 k/b (time of purch)	20.00

EZTower Systems, MiniTower/Desktop Cases & Accessories

CASE-FT-DIY	EZTwr Mk4 kit w/250W, FD cab/fp, bkpl for self conv'n	79.95
CASE-FT-DIY-PLUS	EZTower kit w/250W PSU, EZKey, PC kbd, FD cab/fp	99.95
CASE-FT-RTU	Ready-built EZTower 250W PSU, LED adpt, FD cab/fp	99.95
CASE-FT-RTU-PLUS	Ready-built EZTwr w/250W, EZKey, PC kbd, FD cab/fp	119.95
CASE-DT	Desktop case with 200W+ psu for HD/CDROM	29.95
CASE-MT	MiniTower case wth 200W+ psu for HD/CDROM	29.95
CASE-FT-A4KUG	EZ-Tower upgrade from PC to A4000 k/b (time of purch)	20.00
CASE-FT-EXKT	EZ-Tower conversion kit - No PC Tower	39.95
ADPT-AUD-EZTW	EZTwr audio mixer/adapter for A1200/CDROM	14.95
ADPT-SCSI-EZTW	EZTwr SCSI adpt 30cm 2xCent50F, 1xIDC50F	14.95
ADPT-PWR-PPC	2nd A1200 m/bd powerfeed adapter (if req'd) for PPC acc	19.95
CAB-SER-SSQ	9pDM->9pDF SurfSquirrel EZTwr serial extn cable 50cm	9.95

SVGA Monitors- require SD and/or FF to use all Amiga modes

MON-14-.28	14" dig SVGA 0.28DP 1024x768@60Hz	89.95
MON-15-.28	15" dig SVGA 0.28DP 1024x768@60Hz	119.95
MON-17-.27	17" dig SVGA 0.27DP 1280x1024@60Hz	199.95
MON-17-.25	17" SVGA 160MHz,0.25DP,1600x1280@75Hz Diamondtron	399.95
ADPT-MON-SEFF	EZVGA-SE ext flickerfixer purch w/ monitor	85.00
ADPT-MON-M2SD	EZVGA-Mk2 ext s/dblr u/g'able purch w/ monitor	65.00
ADPT-MON-PLFF	EZVGA-Plus ext flickerfixer purch w/ monitor	90.00
ADPT-MON-INSD	EZ-VGA internal s/doubler purch w/ monitor	45.00
ADPT-MON-INSD2	EZ-VGA internal s/doubler purch w/ monitor for BMON	55.00
ADPT-MON-INFF	EZ-VGA internal f/fixer purch w/ monitor	75.00
ADPT-MON-INFF2	EZ-VGA internal f/fixer purch w/ monitor for BMON	85.00

Digital Cameras and Amiga Digital Camera Software

CAM-MIN-DMV	Minolta Dimage-V digicam w/psu, case, 2MB card CamC'trol	259.95
CAM-MIN-DMV-SM2	2MB Smartmedia card for Minolta Dimage-V digital camera	19.95
CAM-MIN-DMV-B40	40 x AA alkaline cells for Minolta Dimage-V digital camera	24.95
DVR-CAM-CAS	CamControl s/w for Casio, Fuji, Kodak, Minolta, Olympus	29.95

Application Software & Drivers

ASW-AL4D	Aladdin 4D	59.95
ASW-IFX4	ImageFX v4	149.95
ASW-IFX4-PPC	Powerstation PPC modules for IFX4	74.95
ASW-IFX4-UG2/4	ImageFX 4 upgrade from IFX v2x	99.95
ASW-IFX4-UG3/4	ImageFX 4 upgrade from IFX v3x	74.95
ASW-WF	Wildfire 68k/PPC	99.95
ASW-MM400	Scala MM400 on CD	59.95
ASW-MM400-UG	Scala MM400 on CD with u/g from MM300	39.95
DVR-TBPR7	TurboPrint 7.x Amiga printer driver (English)	38.95
DVR-TB6/7-UG	TurboPrint 6.x to 7.x upgrade (send TB6 disk with order)	19.95

Amiga Image Conversion/Effects Software, Scanner Software, Scanner Bundles and Adapters

SCN-FBA4-BDL3	UMAX award-winning SCSI A4FB scanner with PScope	149.95
DVR-SQ4	ScanQuix4 + 1 driver (Epson/HP/Artec)	59.95
DVR-SQ4-U	ScanQuix4 + 1 driver (UMAX)	79.95
DVR-SQ4-UG	ScanQuix3 to SQ4 upgrade (trade-in & receipt reqd)	29.95
DVR-PHS	PhotoScope UMAX-SCSI Amiga Scanner Driver	59.95
ASW-UCV4	Ultraconv 4 Graphics, animation & effects Amiga s/ware	39.95
ASW-UCV4-SP	Ultraconv 4 Graphic s/w etc purchased with ScanQuix4	29.95
CAB-SCS-25D/50C-S	SCSI cable DB25-M to Cent50-M 1m pur with scanner	5.00
CAB-SCS-25D/25D-S	SCSI cable DB25M to DB25M mac type pur with scanner	5.00
CAB-SCS-50C/50C-S	SCSI cable Centr50M to Centr50M 1m pur w/scnr	5.00
CAB-SCS-50H/50C-S	SCSI-2 cable 50h/pDM to Cent50M 1m for PPC pur w/scnr	10.00
CAB-SCS-50H/25D-S	SCSI-2 cable 50h/pDM to 25D-M 1m for PPC pur w/scnr	10.00
ADPT-SCS-CSQR-SP	Classic Squirrel PCMCIA SCSI i/f 50pCM pur w/scnr	54.95
ACC-SCS-BLM4-SP	SCSI/Simm socket for Bliz 1230/50 Mk4 pur w/scnr	69.95
ADPT-SCS-50/50CF-SP	Centronics 50p-F to Centronics 50p-F (SQ) pur w/scnr	7.50
ADPT-SQ3-PAR	SQ3 adapter Epson scanner ->parallel port cable	9.95

Hard & Floppy Drive, CDROM, LS120 & Zip Mech. & Cases

FDD-ITL-1200	Replacement A1200/600 int FDD 880KB	24.95
FDD-ITL-BARE	Bare 1.44/880 Sony FDD for tower (needs EZDF0/Catwsl)	19.95
FDD-ITL-D/C/I	Twr int 880Kb FDD(Sony/EZDF0/cab bundle)	29.95
FDD-ITL-D/I	Twr intl 880Kb FDD (Sony/EZDF0) No cable	24.95
HD2-21	21MB 2.5" hard drive 90 days warranty	29.95
HD2-170	170MB 2.5" hard drive	49.95
HD2-260	260MB 2.5" hard drive	59.95
HD2-3.2	3.2GB ultra slim 2.5"drive, 9mm high (2 fit in std A1200)	149.95
HD2-4.1	4.1GB ultra slim 2.5"drive, 12mm high (2 fit in std A1200)	169.95
HD3-3.2	3.2GB 1"x3.5" IDE drive for tower	99.95
HD3-4.3	4.3GB 1"x3.5" IDE drive for tower	109.95
HD3-1.72	17.2GB drive for EZPC system or IDE Flyer	199.95
HD3-LS120	Panasonic LS120 Floppy/Optical 1.4/120MB	79.95
HD3-LS120-CT3	3-pack of 120MB (nominal) LS120 carts	29.95
HD3-ZIP-CT1	Single 100MB (nominal) Zip cartridge	14.95
HD3-ZIP-CT3	3-Pack of 100MB (nominal) Zip cartridges	29.95
HD3-ZIP-IDE	Bare ATAPI/IDE Zip drive internal	79.95
CAB44-CD-13C	44way (2.5" HD) cable purchased with CD/HD 13cm	6.00
CASE-ZIP	Metal slim case-FDD/IDEZip/SyQuest/LS120	9.95
CASE-HD-ECON	External 3.5" HD case no psu	19.95
CASE-HD-REM	Removable drive case for 3.5" HD (metal) no psu	24.95

Keyboards, Mice, PSU's, Printers, Misc. Hardware

FAN-60MM	Cooling fan for A1200 60x60x25mm 5/12v	14.95
FAN-LP	CPU cooling fan for towered A1200 accelerators 12v	9.95
KBD-IR	KBPlus Infrared keyboard (PC output)	39.95
KBD-IR/A	KBPlus Infrared keyboard with EZKey SE/P Interface	59.95
KBD-A1200	Replacement A1200 k/b w/ribbon cable	24.95
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KBD-WIN95	Windows 95 keyboard with 5-pin AT DIN plug	12.95
MOU-WHI	Amiga Mouse	6.95
PRT-B&W-FUJ	Fujitsu portable thermal printer w/ribbon & PSU	49.95
PRT-B&W-FUJ-RIB	Replacement thermal transfer ribbon for PRT-B&W-FUJ	4.95
PRT-B&W-FUJ-BAT	NICD rechargeable battery for PRT-B&W-FUJ	14.95
PRT-B&W-FUJ-PPR	100ft x 8.5" Thermal paper for PRT-B&W-FUJ	4.95
PSU-100	100w PSU for Amiga (fit your old lead w/instrns,connect's)	29.95
PSU-200	200w PSU for Amiga (fit your old lead w/instrns,connect's)	39.95
PSU-230	200/250w replacement PSU for MT/DT/FT	29.95
PSU-A1200	A1200 23W PSU (original) 90 days warranty	19.95
SPK-60W-INT	5.25" Bay Internal mounting 60W PMPO speakers/amp	24.95
SPK-240W	240W PMPO speakers w/ PSU 3.5mm jack, AC mains PSU	24.95
SPK-600W	600W PMPO AC/mains spkrs w/ subwoofer	49.95

Accelerators: PowerPC with 680x0 Co-processor

ADPT-VGA-BV8M-SP	BVision 8MB A1200 gfx card pur w/ PPC acc	139.95
ACC-PPC-16-4025	Bliz'd PPC603/160MHz+040/25/FPU/ no SCSI	199.95
ACC-PPC-16-6050	Bliz'd PPC603/160MHz+060/50/FPU no SCSI	479.95
ACC-PPC-24-4025	Bliz'd PPC603/240MHz+040/25/FPU no SCSI	319.95
ACC-PPC-24-6050	Bliz'd PPC603/240MHz+060/50/FPU no SCSI	549.95
ACC-PPC-16S-4025	Bliz'd PPC603/160MHz+040/25/FPU/SCSI-2	268.95
ACC-PPC-16S-6050	Bliz'd PPC603/160MHz+060/50/FPU/SCSI-2	548.95
ACC-PPC-24S-4025	Bliz'd PPC603/240MHz+040/25/FPU/SCSI-2	388.95
ACC-PPC-20S-6050	Bliz'rd PPC603/200MHz+060/50/FPU/SCSI-2	548.95
ACC-PPC-24S-6050	Bliz'rd PPC603/240MHz+060/50/FPU/SCSI-2	618.95
ADPT-PWFD-5P	2nd A1200 m/bd powerfeed for PPC acc : PSU to 5p plug	19.95
ADPT-PWFD-FD	2nd A1200 m/bd powerfeed for PPC acc : PSU to FDD hdr	14.95
ADPT-PWFD-PPC	2nd A1200 m/bd powerfeed for PPC acc : PSU to PPC fan	14.95

Accelerators: Apollo 680xx

ACC-060-75LC	Apollo '060 MMU 75MHz A1200 acc (lim avail)	249.95
ACC-060-66	Apollo '060 MMU/FPU 66MHz A1200 acc (lim avail)	349.95
ACC-060-50	Apollo '060 MMU/FPU 50MHz A1200 acc (lim avail)	264.95
ACC-040-40	Apollo '040 MMU/FPU 40MHz A1200 accel	184.95
ACC-040-40-SE	Apollo '040 MMU/FPU 40MHz A1200 accel (20% o/c)	164.95
ACC-040-28	Apollo '040 MMU/FPU 28MHz A1200 accel	124.95
ACC-030-40-1S	Apollo '030 MMU/FPU 40MHz A1200 accel 1 simm skt	59.95
ACC-030-40-2S	Apollo '030 MMU/FPU 40MHz 2 simm skt	69.95
ACC-4/60-SSKT	Apollo 1230/40/60 2nd simm socket & fitting	20.00

Memory: Simms, Zip RAM, FPU's-Please ring for latest prices

MEM-32MB-72P	72 pin 32MB 32 bit simm 60ns for Amiga (+£10 for 1-sided)	79.95
MEM-16MB-72P	72 pin 16MB 32 bit simm 60ns for Amiga	44.95
MEM-8MB-72P	72 pin 8MB 32 bit simm 60ns for Amiga	24.95
MEM-4MB-72P	72 pin 4MB 32 bit simm 70ns	14.95

WB Disks, Kickstart ROMS, Manuals etc

SYS-WB30-DSK	Amiga WB3.0 disksx5 + Eyetech HD install	9.95
SYS-WB31-DSK	Amiga Workbench 3.1 disks x6 (w/ HD inst)	14.95
SYS-KS31-ROM	A1200 Kickstart 3.1 ROM chips (2 chips)	29.95
SYS-KS31-SET	A1200 K/s 3.1 ROMs & WB3.1 dskx6 (no manuals)	36.95
SYS-KS31-MPUG	A1200 Mag Pk u/g 3.1ROMs,WB3.1,appln s/w, manuals	49.95

EZPC-Tower & Siamese Systems & Components

EZPC-SLE-CF1	EZPC SiSys RTG2.1entry level system	599.95
EZPC-HSE-CF1	EZPC SiSys RTG2.5 system Home Studio Edition	999.95
EZPC-DVE-CF1	EZPC SiSys RTG2.5 system Digital Video Edition	1369.95
EZPC-XLS-CF1	EZPC SiSys RTG2.5 system - ultimate Amiga expansion	1999.95
EZPC-AMP-CF1	A1200 Magic Pack/24x/3.2GB/etc EZPC-Tower upgrade	399.95
EZPC-SLE-CF1-UG	EZPC SiSys RTG2.1entry level u/g (no EZTWR/kb/adpt)	499.95
PSW-W9X/SS	Windows 9x & Lotus SmartSuite bundle	99.95
SYS-SIA-ETH	Siamese System2.5 w/PC, Amiga ethernet	189.95
SYS-SIA-R25	Siamese System software RTG v2.5	99.95
SYS-SIA-R21	Siamese serial s/w RTG v2.1 (ref'ble agnst v2.5)	19.95
SYS-TCP-MIA	Miami TCP/IP stack for Amiga (reg'n fee paid)	24.95

CD32, SX32 & Accessories

ADPT-KBD-SX32P	SX32 Pro PC k/b adapter cable 10cm	9.95
CD32-JOY	CD32/SX32 joypad	9.95
CD32-PAL	CD32 console with 18Wpsu/joypad/RF lead	149.95
SX32-MK2	SX32 Mk2 Ram/Clock/FPU expander for CD32	149.95
SX32-P40EC	SX32 Pro 030EC/40MHz Acc/Ram/Clk/FPU to 64MB	199.95
SX32-P50	SX32 Pro 030/50MHz Acc/Ram/Clk/FPU to 64MB	249.95

A1200 Magic Packs, Accessories and Upgrade Bundles

AMP-STR-FDD	A1200 Starter Magic pack FDD vers /w s/w	179.95
AMP-STR-HD2	A1200 Starter Magic pack w/170 HD, EZCD i/f, skt & s/w	248.95
AMU-STH2-CDUG	24 x CDROM upgrade for AMP-STR-HD2 w/PSU	59.95
AMU-PRO-LS120	LS120 120/1.44/0.72MB drive ug w/PRO-PK3	74.95
AMT-LE	FDD Magic Pack in EZTower	299.95
AMT-PS4	EZTower PS/4, 24xCD, 3.2, 030/40, MMU, FPU, 8mb	549.95
AMT-PS4-XLS	EZTower PS/4XLS, 3.2, 040/28, 240w speakers	669.95
AMT-SE	EZTower-SE,32x,3.2,LS120,040/28,16mb,EZVGA,15"mon,240w	999.95
AMT-SE-XLS	EZTowerSE-XLS, as AMT-SE w/17"mon,Prel12TW,CDRW,600w	1799.95

Tools, Test Equipment, Motherboards & Workshop Services

PT-MBD-1200	Replacement A1200 m/b w/VID & RST fixes (no ROMs)	129.95
FIT-EZ-MAIN	A1200 to EZ-Tower fitting - A1200 + floppy drive	30.00
FIT-EZ-XTRA	Fitting/testing per customer-supplied periph into EZtwr	7.50
ADPT-PWFD-SL	2nd A1200 m/bd powerfeed for PPC acc : PSU to soldered con	20.00
REP-AM-2B/1D4	A1200 m/b rev 2B or 1D4 manfact'g bus timing fault fix	30.00
REP-AM-PCMRST	A1200 motherboard CC_RESET manfacturing fault fix	30.00
REP-AM-VID	A1200 m/b VGA-modes video tearing manfact'g fault fix	30.00



Screen PLAY

The latest games reviewed, previews and our definitive hints section.

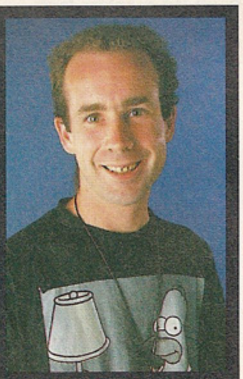
AF'S REVIEW POLICY

WHAT OUR REVIEW SCORES MEAN

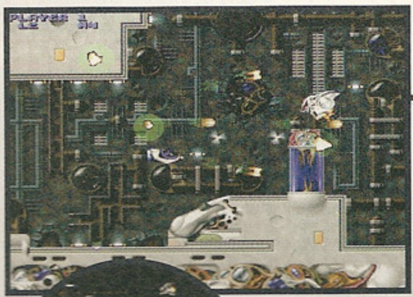
Every month we scour the world's software houses for the latest and greatest Amiga games. We try to ensure we keep you as up to date as possible and we'll stop at nothing to bring you the best, definitive, no-nonsense reviews of the games that matter.

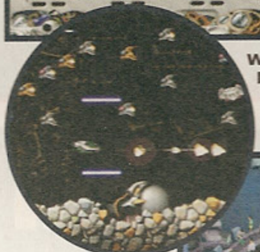
90+%	The crème de la crème. Only the very best, most playable and original games are awarded an AF Gold – the most highly prized rating there is.
80-89%	These are excellent games that could be improved ever so slightly. They are well worth your cash.
70-79%	A very good game with a few flaws. Games that get a score in this range are still good, but need work.
60-69%	Above average products which need improvement to get a better score.
50-59%	Average products get average reviews.
40-49%	Below average and needs a fair bit of work to make it worthwhile.
Under 40%	The absolute pits.

Greetings! There's something a bit strange about the way things happen here at *Amiga Format*. Usually, the new boy gets all the rotten jobs to do, but writing Screenplay is right up my street. Not only do I get to play games, but I also get the chance to express my opinion, which are two of my favourite occupations. So I've been beavering away to give you all the information you need to make purchasing decisions about the latest games. It's a risky business, though. I've been pulling my hair out trying to get that bit further in *Wasted Dreams*, and my predilection for making small green sprites jump all over the place is going to have me seeking counselling for frog addiction soon. Luckily for me, Ben has seen the warning signs of my impending breakdown and has kindly volunteered to review *T-ZerØ*. It's been a good month for game releases, with some good quality titles up for review. And it doesn't stop there – our previews section takes a peek at *Worms Armageddon, Foundation's Edge, Nightlong* and *Land of Genesis*. What's more, next issue we'll be reviewing *Imperator* and *The Gremlin Collection*.



Paul Cavanagh



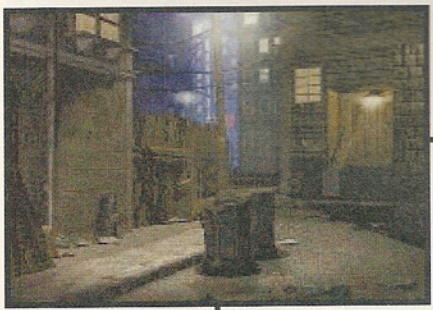


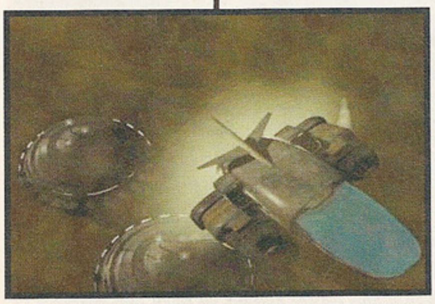
Weave, dodge, but most importantly shoot 'em up!



Explore a new world! And you can even take a mate if you want

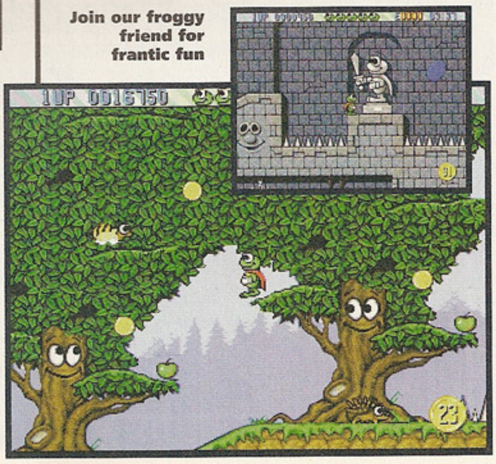






Look at the goodies heading your way soon.

Join our froggy friend for frantic fun



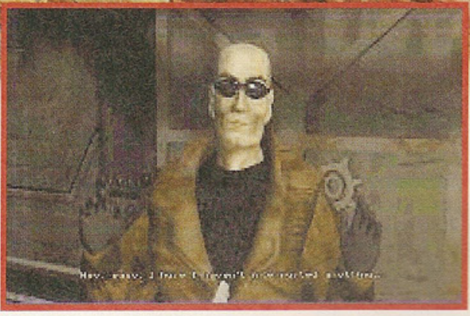
Previews






What's coming up? Paul Cavanagh looks at the games you'll be itching to buy soon.

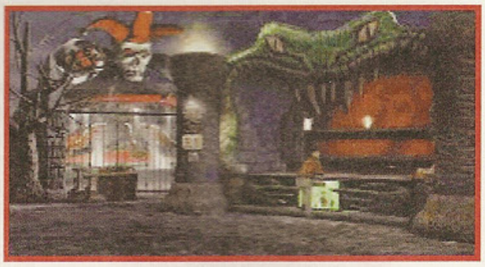
Nightlong



Don't the graphics look superb? And there's over eighty locations for your visual delight.

Originally released on the PC by Team 17, clickBOOM are now working on the Amiga release of this slick point and click adventure. There's a futuristic storyline filled with old chestnuts (multinationals take over the Earth blah blah massive corruption blah blah private dick investigates), but that's not the important thing. As you can see by the screenshots, it looks stunning with 16-bit graphics throughout. The game will boast over 80 locations, as well as loads of speech and in-game movies. There will be two versions – English and German, both coming on 3 CDs. Details on release dates and machine specs are very sketchy at the moment, but with those graphics you can expect to need a graphics card, and clickBOOM are hoping to have the game out by the end of the year.

> "clickBOOM's Nightlong will boast over 80 locations as well as loads of speech and in-game movies."




It would be a real suprise if you could get these sort of visuals without a graphics card



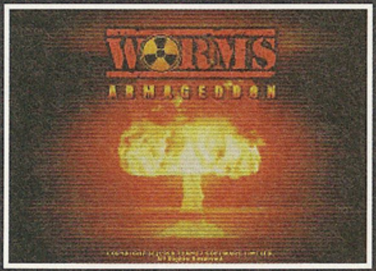





Why is the future always so dark and eerie?

Worms Armageddon

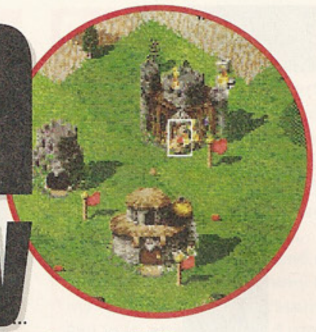
At last! With *Worms* having originated on the Amiga and then being ported to just about every other platform out there, it's about time we got an Amiga version of *Worms Armageddon*. Hyperion have acquired the license to develop the game and will be shipping it for both classic ('060 and PPC/WarpOS, although an AGA version is under review) and NG Amigas. There are no firm release dates as yet, but expect something to be happening by the end of the year.



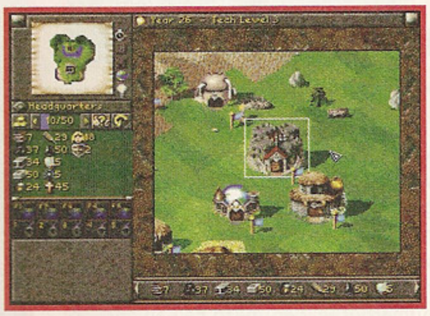


Playing with your Worms? That's a bit fruity.

Foundation updates on the way



There are two new *Foundation* projects currently in production. The first, which should be available from Epic Marketing by the time you read this is *Foundation Director's Cut*, which is essentially the same game as *Foundation*, but with graphics card support, better computer AI, more in-game options and a lot more. Next up will be the sequel, *Foundation's Edge* which will feature more varied landscapes, all new levels, multiplayer games for up to eight teams, new sound and music, new in-game GUI design and more. *Foundation's Edge* should be around sometime later in the year.



Foundation's Edge



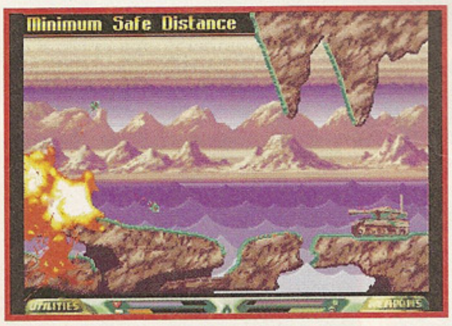




Foundation fans can look forward to an updated version as well as a whole new game.

Minimum Safe Distance

Don't be too hasty in judging *Minimum Safe Distance* from this screenshot. Satanic Dreams are keen to point out that it's is very early days for the game, and are positive that the game will not only have great gameplay, but will look great too. Basically, *MSD* looks as though it's going to be Worms in real-time with the option to play two player split-screen, via serial or null-modem. Players can choose to help each other or blow each other into little bits with over forty weapons. Sounds fun. There's no release date as yet, though.

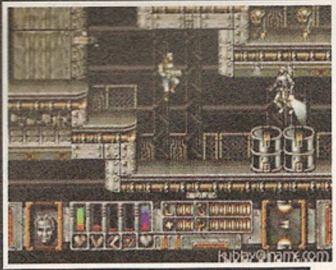


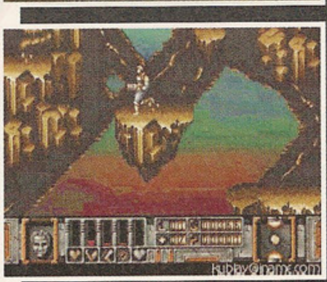
MSD Minimum Safe Distance

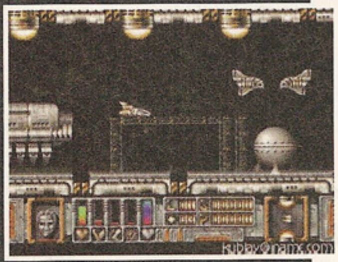
Land of Genesis

Hurrah for *Turrican* style games! I love 'em. So I'll be looking forward to getting my paws on *Land of Genesis* when it comes out in October. This is one of those games that got underway before being shelved. Now it's been taken up by Darkage Software, so we should be able to run about shooting everything in sight fairly soon.







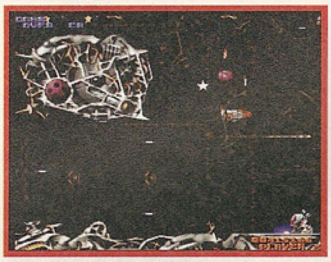


Combining platform and shoot 'em up action, Land of Genesis looks like a bit of a giggle.

T-zerØ

Ben Vost gets back to tha old skool, boyz, with this dope shoot-'em-up.

AMIGA GOLD FORMAT



These futuristic structures. What are all for? Blowing up spaceships, of course.

Ah, them were the days, queuing up to get a go on R-Type, pushing past the big boys who smoked Rothmans and sported love bites. Actually I'm a bit too old to have been doing that, but swap R-Type for Scramble and you get the idea. The upshot is that shoot-'em-ups were my first arcade love, and they remain to this day a great source of amusement and irritation in equal quantities. I actually bought a copy of R-Type Delta for my PlayStation – it was great, but over too quickly, so I needed a new source of blast power. The new consoles and the PC just aren't very good at this sort of game, in the main. They want to add spurious 3D objects in (mainly because it's hard to scroll smoothly), or convert the whole thing to polygons and 3D in a kind of souped-up-*Tempest* kind of way, but I'm not interested in those games. Give me a home where numerous baddies roam and the scenery scrolls by all the day and I'm a happy bunny. Better yet, if there are numerous power-ups to be had and occasions when there's so much going on on the screen you can't see what's happening and have to rely on the Force to guide you – that's my kind of game. In fact, that's *T-zerØ*.

> "There are numerous power-ups to be had and occasions when **there's so much going on** on the screen."



One of the best things about this game is that, unlike earlier shoot-em-ups on the Amiga like *X-Out*, *ProjectX* or the like, there are moments when there are just far too many things flying around the screen – with no slowdown! This also means that because this is possible, the authors do it, making the game very hard for beginner players. Even so, after a few goes you should be getting used to the organic way baddies appear instead of regimented waves that can be learned, and deaths are more often caused by foolish jiggling of the ship at the wrong time than by taking a bullet in the gob.

One of the differences between *T-zerØ* and other blasters is the fact that you need to be more discerning



(left) Avoid those skulls. They invert your controls. The little swines.



(above) You'll need the manual to enter copy protection codes in order to play the game.

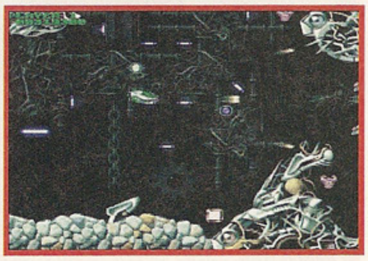






(Above) It's easy to smash into the scenery if you try to get all the pickups

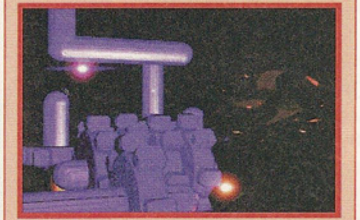




Never a dull moment. There's always plenty happening on screen, with no slow-down.

Incidentals

You know how console magazines always go on about the intro for a game – something you'll probably only ever look at once – well, our turn now. The intro for T-zerØ is very nice indeed, although it's a bit dark, and the soundtrack to accompany the game is suitably block-rocking or hi-energy, depending on which sort you choose.



It's all very pretty, but you sometimes wonder what exactly is going on.



Game over, man, game over! A scrolling field of graves. Cheerful.

Only Amiga makes it possible

People have moaned that they won't buy a game these days unless it'll work on their expensive graphics card, and, in the main, I agree with them. However, you just couldn't do this kind of a game on an Amiga graphics card – at least not without some serious horsepower behind it, and we're not just talking about a mid-range 603e here. Actually the fact you can do it on an Amiga at all, especially an 030 machine is quite impressive. Previous titles of this kind have always had a slow-down when too much stuff was on the screen and also limited the amount of objects flying around.

Ship-shape

There are three spaceships to choose between when you accept the mission to wipe out the bad guys, and in traditional shoot-'em-up fashion, they all have their own attributes and problems. The manual talks of an extra ship to be found, but we haven't got it yet.



The Mantar 2 is a good all rounder, with average weapons and speed.



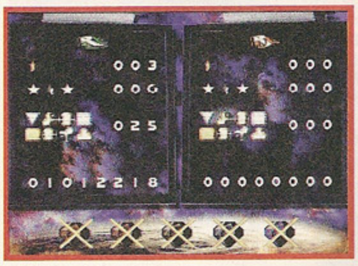
The Suzer 4 is small and nippy, but lacks plasma front weapons.



The Gordan Maj – a big blaster. Slow and cumbersome, but packs a punch.

Geek stuff

The technical specs for T-zerØ are pretty modest, compared with clickBOOM's other games. On the box it reckons you need a 25MHz 030 with 8MB RAM free, but we coped with our crappy office 1200 that only had 6MB all told, however, it was no go (and not very informative as to why not) on my A4000 with a CyberStorm MkIII 060 in it, although it did run on Rich's A4000 with CyberStormPPC card. To be really honest, I didn't spend an age trying to get it to work on my A4000 – I wanted to play the game itself too much!



At the end of each level you are awarded bonus points for pickups



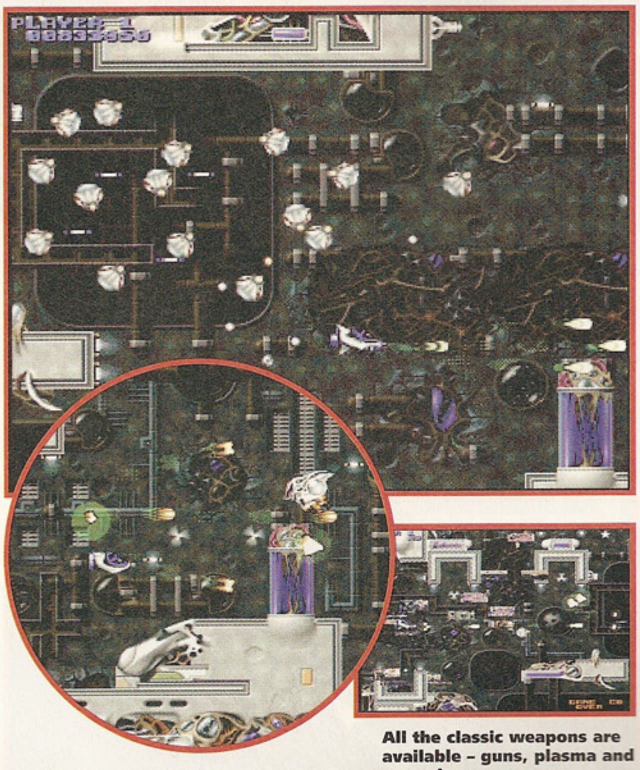
Nuke 'em! Them there nukes are pretty effective. And so they should be

about just which power-ups you pick up – leaping about the place collecting everything will not only get rid of the guns you'd built up and built up, but also give you a crappy laser that's back on power level one. There are also bonus items you can pick up, and in story mode the number you retrieve determines which path you'll take through the game. The only bad thing about the power-ups is that you never get to the kind of gratuitous outrageousness that you got in *Gradius* or the like, with your weapons basically clearing all before you.

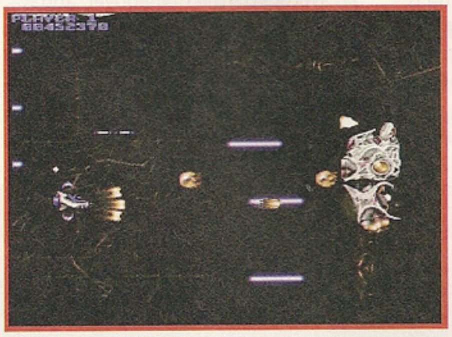
In fact, there are very few areas we could complain about *T-zerØ* on. The whole game saving thing is a bit weird to work out, and the pixel perfect positioning of your craft to escape the hail of bullets is sometimes unforgiving, but then, that might be our shoddy joysticks. It's also hard to keep the power-ups you like since they often get dumped one on the other, meaning that it's hard to separate those homing missiles from that front-firing plasma you didn't want, but at least your default weapon is powerful enough so that you don't feel like giving up if you've lost a life at the end of a level.

The single best bit for me has to be the extras. The CD track listing hints at extra secret levels; there are several ways to play the game (arcade or story, easy or hard and more), and, as we said before, there is at least one extra ship to be gained. In addition to all this in-game excellence you can even design levels of your own with the inlcuded (*Blitz Basic*-based) level designer, although you're limited to the graphics and backgrounds they use.

In short, this is a great game. It may not be revolutionary, it might not run on graphics cards, but it is absolutely chockful of addictive elements and great fun. Our recommendation? Buy it immediately.



All the classic weapons are available – guns, plasma and secondary weapons.



A powered up hero kicks some alien butt.

SUPPLIED BY: Weird Science (0116) 246 3800

PRICE: £29.99

REQUIREMENTS: 030, 8MB RAM (ish) and a CD-ROM drive

Pros and Cons

- + Super-addictive
- + groovy graphics
- + excellent sound
- – Some awkward controls

OVERALL VERDICT: Fantastic! Get it now

93%



A two player game in full swing. He's mine! Mine! Leave him to me.

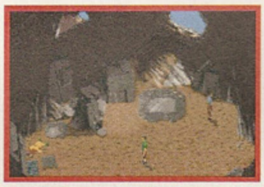
And now the bad news...

A few things are wrong with T-zerØ. One is the save game system, which is practically unfathomable. Another is the fact that because the Amiga only has four channels of sound, the sound of your guns firing blanks out when Sofia says you've picked up a new weapon (and at other times). Using AHI would have resolved this, but probably would have slowed down the game too much. Another cack thing is the groping for the keyboard when you want to use a smart bomb – why not add support for two button joysticks like the CD^{32}? Other than those minor niggles there isn't much wrong with the game, which is why we put these bad bits in a box where you might not even see them...

Wasted Dreams

Paul Cavanagh explores a hostile planet, picks things up, gets into fights and has a bit of a tantrum when he can't get very far.





What interesting goodies can be found in this cave?





(left) Here's a bar in the Military Complex. Check out the icon of the lips, indicating that you can speak to someone.

The superb animated intro to *Wasted Dreams* paints a grim picture of our society in the near future. With the World's population grown to unsustainable levels, criminals begin to get the upper hand, and lives are ruled by fear. Life on Earth becomes so intolerable that a mission to locate and colonise a new planet is established. After two years in space, a planet is located, and colonisation begins. Things go well and before long the ship is on its way back to Earth bearing the good news, so that a mass evacuation of the homeworld can begin. Just as the ship is about to leave orbit, she is attacked and destroyed, with only a single escape pod surviving the blast.

> "The principles of playing Wasted Dreams are simple, basically you roam about talking to people"

Unsuprisingly, when you start the playing the game, you control the survivor or survivors of the attack. The game allows for two people playing simultaneously, but if you choose the single player option, the first thing you see is the other character dying.

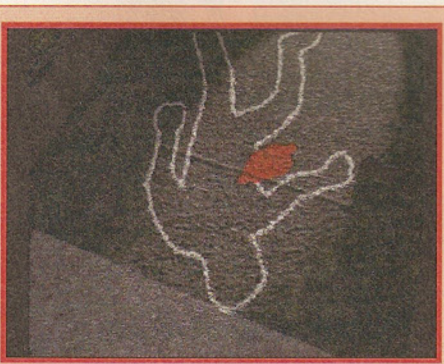
The principles of playing *Wasted Dreams* are simple, basically you roam about exploring, talking to people and trying to stay alive. Surviving is actually pretty difficult – it's not just the indigenous population that are itching to get in a fight with you, the colonists are happy to have a go too. The enemies are always armed with laser guns, and they're generally pretty good shots. You need to progress a long way into the game before you discover somewhere to recharge your shields, and up until that point the game can be frustratingly difficult.

Interacting with the environment and characters is made simple with a clever little control system. Beneath the main playing area, there's a little window that shows animated icons if you can interact with anything or anyone that you are standing next to. The icons are designed to be easy to understand, for example if you are able to speak to someone, the icon shows a mouth opening and closing. Below the icon there is an inventory, and you can highlight different items by holding down Alt and pressing left or right on the joystick. This can be an awkward little maneouver, and it irritates me that you have to hold the Alt button down – it would have been easier to press and release Alt, move your joystick and then press fire to select an item. It's only a little thing, but these things all add up.

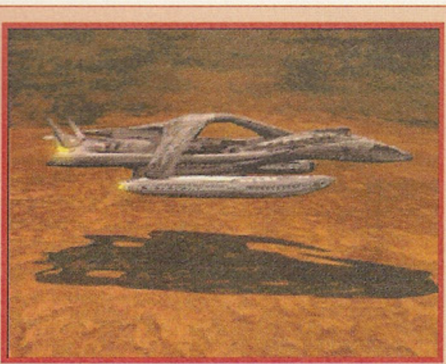


Here we see a giant plasma weapon being discharged. Now why would the colonists want such a big gun?

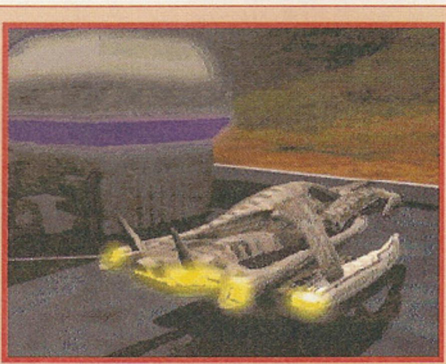
Wasted Dreams – The Story



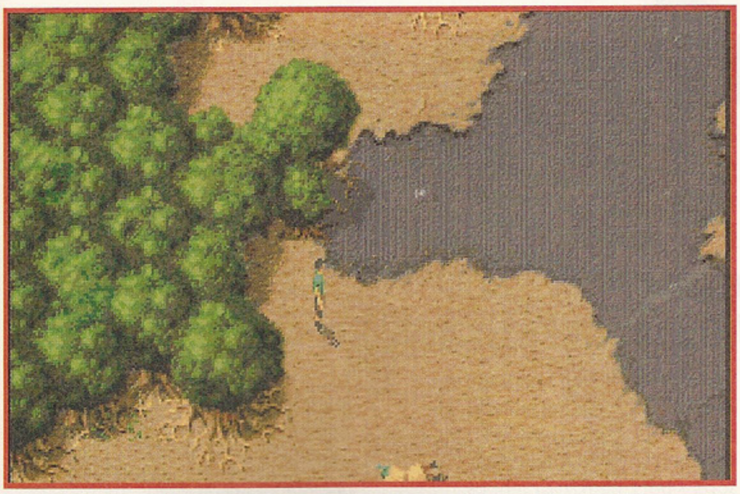
The Earth has become all dark and spooky, and there's nastiness everywhere. So an exploration group set off to find somewhere else to live.



They find a new planet, and begin the colonisation program. Before long they've got it all ticking along nicely...



...So they launch a ship back home to Earth, so that the rest of the population can enjoy this new paradise.



Is it just me, or does this really, really look like The Chaos Engine?

Fun With a Friend

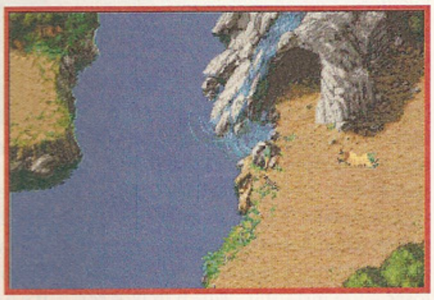
If you team up with a friend you can gang up on the bad guys, which means that you both last longer. The game's easier in two player mode, so if you've got mates, get them to play the game with you.





You can choose whether or not your shots hurt your playing partner. Be warned though, accidentally hitting your friends can result in nasty face-offs.

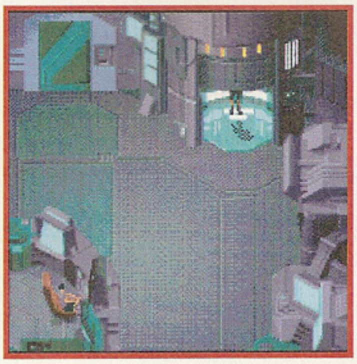
Talking to other characters can be fun. There's a lot of dialogue in *Wasted Dreams*, which pulls you into the game with the characters' dialogue helping to develop the plot and give you hints. The non-playing characters speak in a multitude of different accents, which can occasionally give you the giggles. The voice acting isn't brilliant, in fact it's down-right cheesy in places – there's an Australian engineer who all but says 'strewth cobber!', a mining technican whose Ulster accent borders on the ridiculous, and a good number of characters who seem to have been to the Biggles school of diction. I'm not sure that it's supposed to be funny, but the silly voices are one of the best things about the game.



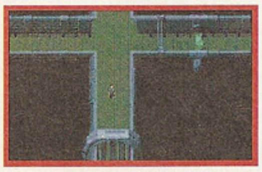
What a shame there's all this hassle going on. It's such a pretty planet, with waterfalls and everything.

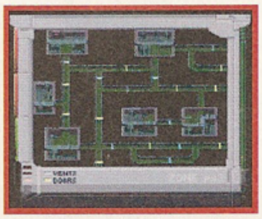
Visually, the game is nothing special. The graphics are clear and well drawn, the animation adequate. There's nothing here that's going to make you sit up stare, and the graphics are hardly original. The top down perspective along with the way that trees and bubbling mud pools are depicted are distinctly reminiscent of *The Chaos Engine*, while the character animation and the 'collect items in order to progress' gameplay isn't a million miles away from *Prince of Persia* or *Flashback*. Even the sound effects of jungle noise reminds me of *Cannon Fodder*. However, despite the fact that so much of the game seems to have been borrowed from elsewhere, *Wasted Dreams* does manage to retain a sense of originality. There is a strong storyline here, and the gameplay, whilst not groundbreaking, is applied in such a way as to seem original.

Initially, the game is very appealing. It doesn't take long before the plot develops, leaving you with more and more questions to answer. Meeting new characters reveals a little more of what is going on, which makes the story all the more intriguing. To begin with, the fights are fun. But play the game for a while longer and things begin to get a bit tedious. You start to avoid getting in a fight because your energy levels start to deplete rapidly, you get stuck and spend ages wandering around the same locations, trying to figure things out, and when you do progress you don't feel suitably rewarded. The game can get fairly repetitive, it's easy to imagine that if you can just get through that door, you'll be welcomed by a whole new area with new and interesting environments and characters. But make it through the door and it's just more of the same. This isn't an easy game, although a few of the puzzles are very obvious, most problems take ages to solve. It's good to have a challenge, but with this game there's nothing interesting you can do if you reach an impasse. *Wasted Dreams* is far too linear in its approach to game progression; it would have been more interesting to have had a good few puzzles to solve at any one time, what you get is one or two challenges that must be cracked otherwise there's nowhere to go. It's a shame, because there are so many appealing features here, the plot is really interesting, and I really want to get on and find out what's going on, but if you can't progress the game just gets tiresome.



(left) You'll be happy when you reach this part of the game. It's a machine that recharges your shields. Phew!

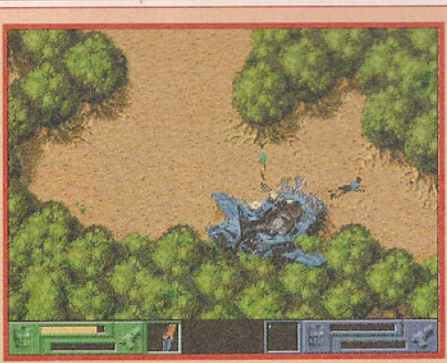




There's a really tricky mazey bit in the game, but if you press 'm' you call up one of these groovy maps.



but before the ship can leave orbit, it's attacked.



Leaving just two survivors to figure out what's going on.

DEVELOPED BY: Digital Dreams Entertainment
www.dd-ent.com
PRICE: £27.99

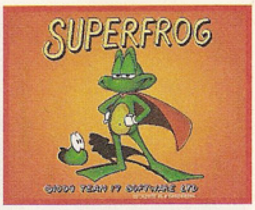
Pros and Cons

+ An intriguing, involving plot.
+ There's lots to do.
+ Funny voices.
- It can be difficult to progress sometimes.

OVERALL VERDICT:
This is a great game - if you've got the patience for it. It's frustrating, but very involving.

72%

Superfrog



Isn't he simply wonderful?

AMIGA FORMAT GOLD

Paul Cavanagh relives the glory days of classic 2D platform games as he joins Superfrog for some frantic amphibian antics.

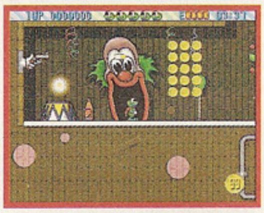


Ta-daaa! Superfrog sets off on his mission. As depicted by Eric Schwarz.

If there was ever a game worthy of a re-release for the Amiga, this is it. Team 17 developed some of the best games to grace the Amiga, and *Superfrog* stands out as one of the most playable platformers around.

The introductory Eric Schwarz animation is funny, cute and screams quality at you, reflecting the content of the entire game. With sharp, colourful, cutesy, cartoony visuals and a soundtrack that's fun while somehow contriving to not irritate, this game really is a must for any self-respecting Amiga owner. Unless you completely hate all platform games, that is.

> "Superfrog himself is a versatile little character. He can jump with a level of dexterity I've never seen in a frog."



A clown tries out crunchy frog surprise. Yum.



Battle through five worlds of platform action and be rewarded with Project F, this lovely froggy shoot 'em up.

The plot is as cheesy as they come, with a prince being turned into a frog by a witch who has abducted his beautiful wife to be. Fortunately for the lovelorn amphibian, he comes across a bottle of Lucozade which magically transforms him into Superfrog, giving him the powers to chase after the wicked witch and rescue his betrothed.

The gameplay is all very standard platform fare. You know the score: leap about collecting coins, power-ups and goodies, whilst avoiding or splatting the bad guys (there's all sorts – bats, bees, hedgehogs, tortoises – it's all fairly clichéd, but I've got a feeling that Team 17 knew that, and were conscious of making *Superfrog* a classic platformer with all the classic elements). If you come a cropper you lose energy which can be replenished by drinking Lucozade (a universally popular drink in computer game land, it's not only Lara Croft who likes it). The exception to this rule is when Superfrog falls on spikes or gets burnt by fire, in which case he loses a life instantly. Which makes for some challenging gameplay in later levels, where spikes are spread liberally around the maps, usually at the bottom of steep, slippery hills. The game action is pretty pacey, but not so fast that you feel as though you can't control it.

Superfrog himself is a versatile little character. Without any powerups he can run and jump with a level of dexterity I've never seen in a frog (it's good stuff that Lucozade). If he comes across a pair of wings he can flap his little arms about and stay in the air for a bit longer, giving him access to those harder-to-reach platforms. He can also pick up Destructo-Spud, a little creature that he can throw at enemies. The Spud won't dispose of every bad guy, but is very handy to have about. Both of these bonus items stay with Superfrog until he loses a life. Other bits and pieces worth looking out for are speed up icons, which have an obvious effect and last until Superfrog picks up a slow down icon. There are also restart icons liberally dotted around the levels.



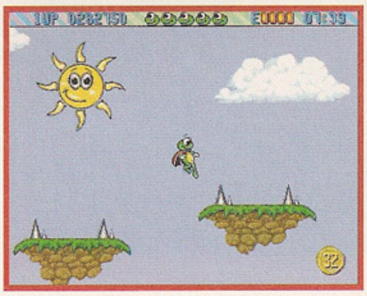
Nice friendly trees. And horrid stingy bees.

With five different game worlds, 25 levels and subgames there's enough here to keep you interested. It's a bit annoying that nothing's been added to the game, but if it ain't broke, why fix it?

Way back in *AF* Issue 47 *Superfrog* was awarded 85%, failing to score more due to its lack of originality (given that there was a plethora of platformers about at the time, it's hardly surprising). I've always loved platformers, and *Superfrog* has got to be one of the best ever. So based on the fact it's such a hard game to put down and that the game now only costs £14.99, (compared to £26.99 in 1993), I'm awarding it an *Amiga Format* Gold. Go buy it.



You can gamble points for prizes at the end of each level with this snazzy fruit machine. It's worth it – it's the only way you can get level codes.



Picking up the wings lets you hover, useful for avoiding nasty spikes.

AVAILABLE FROM: Islona Entertainment 01793 422 355

REQUIRES: Any AGA Amiga with a CD-ROM

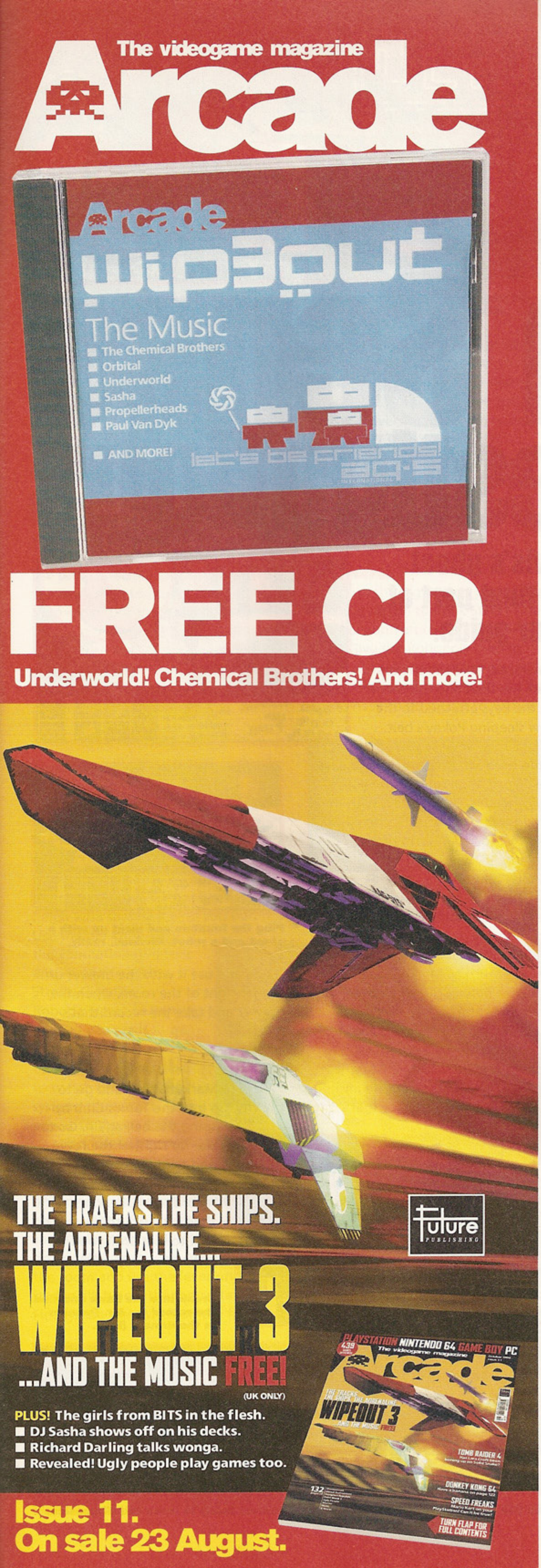
PRICE: £14.99

Pros and Cons

+ Classic platform action.
+ Great graphics and sound.
+ Lots of fun levels to play through.
- It's six years old, and there's nothing new here.

OVERALL VERDICT:
If you haven't got it already, you can't go far wrong for fifteen quid.

90%



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Errors & Omissions Excepted - 02 August 99

GAMEBUSTERS!

Sixth Sense Investigations

FULL SOLUTION



PART 3

Chat about Elvis's ghost and liaise with disguised robots in the final part of our walkthrough. Mark Wheatley is your guide.





Beware of shoddy puns after you blow your way into the bank.

Go to the city and then to the park. Talk to the warden and give him the letter. Then talk to him about his spiritual experience and when he tells you about his experience with Elvis's ghost, give him the sunglasses. Now return to the police station in the city.

You'll have to do a lot of talking to Shirley and Pokey here, and you have to convince Shirley that Mayor Clintwood loves her. This basically involves talking to one character, then the other, then back again. To talk to Shirley the first time, ring the bell on the desk to get her attention. Once she's convinced, take the scissors from her desk and use them on the keys attached to the now sleeping Pokey's belt. Talk to Brad and say you've come from Mr. Peanuts. Ask if he has the record, then repeat that you really need it. Use the keys with the cell door, then open it. To free Brad, take the police uniform that's hanging up, which he'll use to disguise himself.



The scene cuts to Brad explaining that he needs some clockwork, so return to the police station and try to open the wall clock. It'll fall down, so take it, return to Market Street and go to the bank. Brad will blow a way in, so enter the bank.

In front of the safe, take the rubble. You'll have to do this a few times before you uncover the safe-wheel. Use this with the safe and then open it. Take the key that's inside and use it with the drawer on the far right of the room. Open the drawer and take the record that's inside.



Plug the fountain and meet up with a ghost and a robot. Obvious, really.

Leaving Toon World

Return to Market Street and go to the city. Go into the Toon's Club by using the bell again. Go to the far right of the room and take the bottle, plus the cork. Now give the record to Mr. Peanuts. He'll then call Frick the Fox over. Talk to him until you find out about Sally, who has





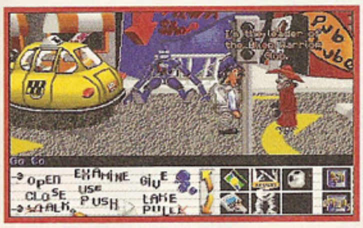
Break into the bank and find the record for Mr. Peanuts in the drawer (left).

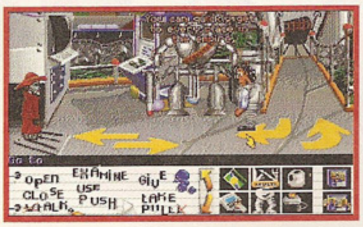
> “You have to convince Shirley that Mayor Clintwood loves her. This involves talking to one character, then the other.”





Once you've talked to Arthur (right), you're almost ready to leave this dimension.





Once back in Robopoly, Sally the robot can be a great help.

been banished by the robot Emperor. Try to leave and Arthur will appear, explaining what you need to do next.

Leave the club and wander off to the park. Press the red button in the warden's shed to open the gates, then enter. Use the cork with the fountain to stop the water flowing, then return to the Toon's Club and tell Arthur that everything is ready. The scene cuts to the park, where you give Sally the console.

I have a plan...

The scene will now cut back to Ben in Robopoly, where he hatches a cunning plan with Sally to overthrow the Emperor. You'll need to talk to the soldier about the quadrophone teleport, and you'll end up being thrown in jail as asking about the teleport is illegal. Give the console to Ralph who says he'll help you out. Use the old knife with the ventilation grill trick and escape to Walk Street. Give the Robopoly map to Barnie and say you want to go to the Computer Centre, where you have to switch off the other systems to redirect power to the computer.

First, use the switch at the top right of the room, near the display of coloured dots on the wall. Now use the lever on the right of the location, with some colour lamps nearby, three times. Walk to the left hand side of the room and use the lever on the back wall, below the red rectangle. Finally, use the switch on the far left,



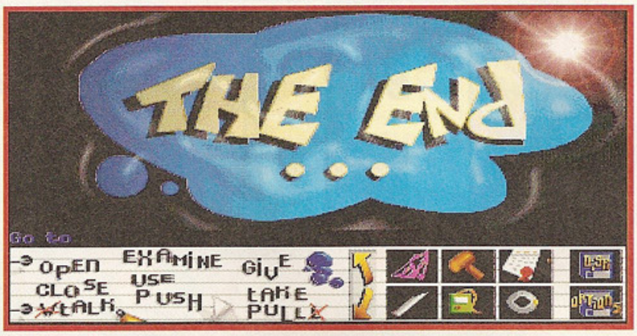
Lots of buttons to push, but you've nearly completed the game now.

on the machine with the tape spool.

Go to the map computer, on the rear wall on the right hand side of the room, and examine the monitor. You'll discover the code you need, which is 4273. Go to the main computer in the centre of the room and enter the code by using the fourth button, then the second, etc. Make sure you get the code right first time!

The End

Now push the big button just to the right and return to Walk Street (use the door controls to open the exit door). Give the Robopoly map to Barnie and say you want to go to Sixth Sense Investigations offices. Now all you have to do is chat to Arthur,



who appears, and then finally use the platform on the right. The scene will then cut to Frank, back on Earth, and congratulations – you've finished the game! All will then be explained, but I won't spoil the ending here. You'll have to play it all through for yourselves...



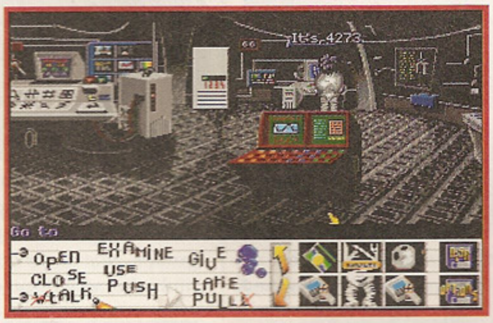
The end of the game, and everyone is reunited. Aww.

> **All will be explained, but I won't spoil the ending here. You'll have to play it all through for yourselves...**



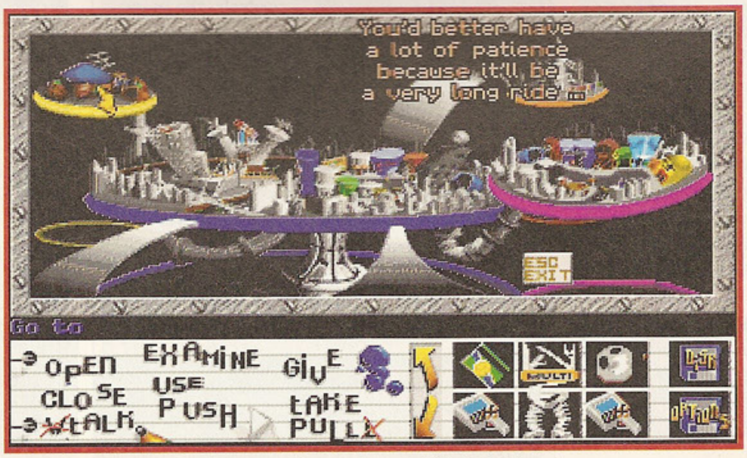


Once you've fiddled with all the computers, sit back and watch what happens to the Emperor (above).

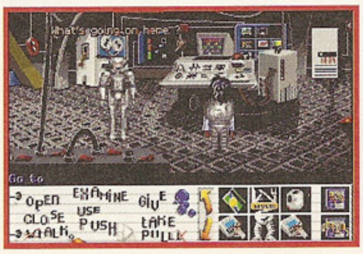




The code you need (left) and the escape from Robopoly (above).



Going back to the Sixth Sense offices takes a while in Robopoly...



SEND US YOUR TIPS!



If you've got some hints, cheats, tips or general good advice on any Amiga games – especially some of the newer ones like Napalm, Hexen, Heretic and Quake,

Also, if you've got a query about a game (and no, we don't really mind people asking about The Secret of Monkey Island,) then drop us a line and we might be able to answer it in Helping Hands.

HELPING HANDS • Amiga Format 30 Monmouth Street • Bath • BA1 2BW



Richard Drummond gives you the low-down on what's new and interesting in the Amiga freeware and shareware scene.

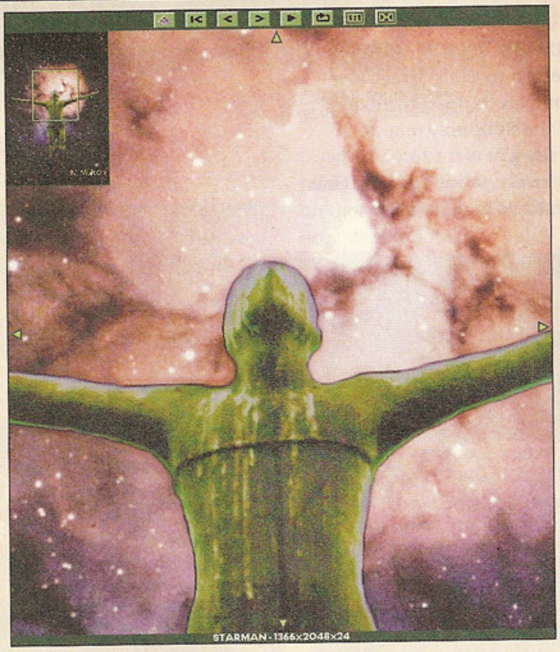
MysticView 1.0

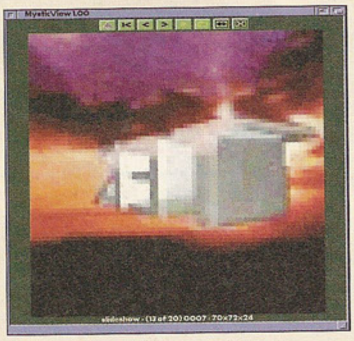
I'm the boss, not the computer. So when I wish to view a picture file, I want it displayed the way I want. Many viewers determine the screenmode that a picture should be displayed in from information stored in its file. Typically for ILBM files this means you get the same screen mode as the picture was created in. This is all very well, but what about if some modes don't work on your setup. For example, I don't have a video monitor or scan doubler so cannot view PAL or NTSC screens.

MysticView puts the user back in charge. It is a picture viewer which allows you to configure exactly how images are displayed. Images are rendered in a standard intuition window on the screen of your choice. If this screen is short on colours, the image can be dithered, colours re-mapped. If the window is too small, the picture can be scaled to fit (taking the screen's aspect ratio into account) or scrolled. It also supports multiple zoom levels. The scaling and dithering performed by *MysticView* creates significant demands on processor power. An 040 is a realistic minimum. A graphics card is also a must to get the most from this package.

MysticView does all its image loading via the standard datatypes. This is a flexible approach since it is easily expandable: coping with a new format is just a question of installing the relevant datatype; and the PPC is supported with a PPC datatype. The disadvantage is that progressive decoding of images (eg, JPEGs and PNGs) is not supported.

MysticView can handle lists of pictures and can show them either one-by-one in a slideshow or as a looped animation. The preloading and caching of images is supported. This latest update has some neat new features as well. There is a new optional toolbar with slideshow and aspect ratio controls; the menu layout has been reorganized to make the locating of functions easier; and there is a new picture-in-picture function.





Take control of picture viewing with *MysticView*.

This current release of *MysticView* is great: it achieves the correct balance between power and ease of use. If many more features were added there would be a danger of overloading. Having said that, an ARexx port would be a valuable addition as the program currently lacks one.

BY: Tim S. Mueller
WARE: Shareware
SIZE: 818K
FROM AMINET: gfx/show/mysticview.lha

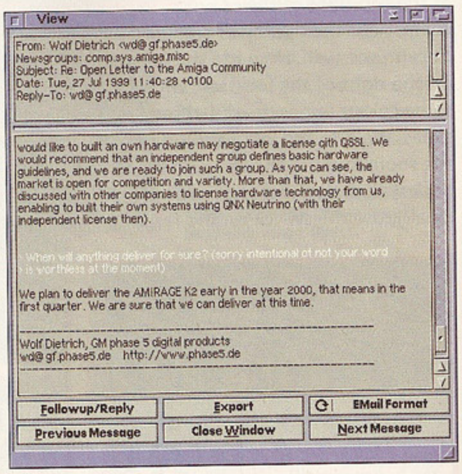
NewsCoaster 1.1

For some reason the Amiga has not been catered for so well in the area of news readers as it has been in other types of Internet software. *NewsRog* and *Thor* are two of the most powerful news clients on any platform, but both are rather difficult for the beginner to get to grips with. *NewsCoaster* attempts to fill the middle ground, combining ease-of-use with some more advanced features.

NewsCoaster is an off-line news reader only. This means it can only batch download complete Usenet posting from a newsgroup. In contrast an on-line reader allows you to scan the headers of all the messages in a group and download only the ones you are interested in reading. An off-line reader will generally require you to be logged in to the net for a shorter period and hence mean lower phone costs.

The user interface for *NewsCoaster* is straightforward. It is realized with MUI and the main window consists of two lists: a list of groups that you are subscribed to and a list of messages in the selected group with a balance bar between the two. The GUI is well-designed and configuration is particularly easy.

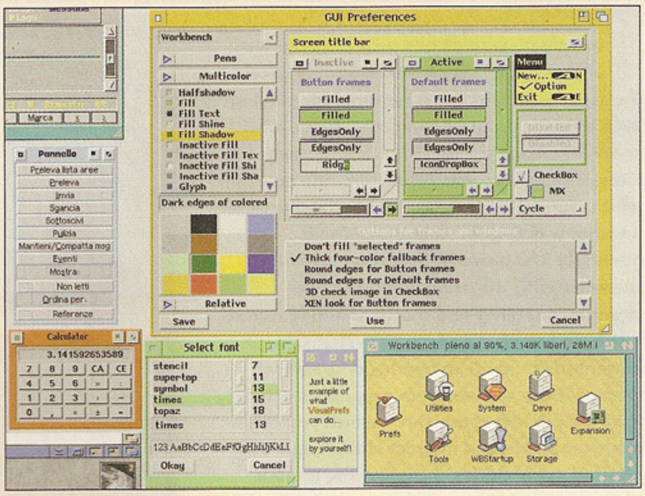
The cost for this simplicity is lack of power. For example, you cannot download messages from individual groups: the Fetch News command gets messages from all subscribed groups. *Newscoaster* does features a degree of multi-threading. You can carry on reading



NewsCoaster is a capable news client.

VisualPrefs 1.5a

One of the nice things – in fact probably the only nice thing – about the X Window GUI system is the degree to which it can be customized to suit personal taste. In contrast, Amiga's Intuition system is by default nowhere near so configurable. But Amiga users are not ones to let default behaviour stand in their way. Over the last few years scores of utilities and hacks have appeared which allow you to tweak different aspects of the Amiga's graphical interface.



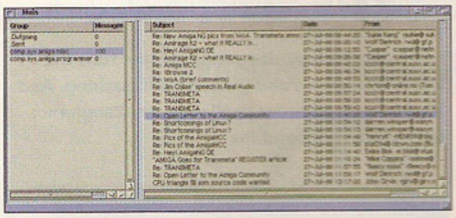
Give your desktop a facelift with *VisualPrefs*.

VisualPrefs is a tool which allows you to take total control over the visual aspects of intuition objects. It permits the modification of all system gadgets and standard GadTools gadgets. You can select the gadget images, the rendering pens, frame types, etc. The package is supplied with sets of alternate gadget images for you to try and even supports the loading of bitmaps so that you can design your own.

The package consists of two main parts: the _VisualPrefs_ hack itself which must be called from your startup-sequence and a Prefs editor. It's more than likely that many of the functions that _VisualPrefs_ performs will be duplicated by other tools that you may have installed like _MagicFrames_, _SysIHack_ and _CycleToMenu_. These should be disabled first. Likewise, if any you have any of these or similar functions enabled within MCP, you should turn them off.

VisualPrefs is a powerful system and neatly combines the functionality of many different tools. However, I found the Prefs editor a real pain to use: it requires too much trial and error to achieve the effects that you want. Also _VisualPrefs_'s GadTools capability achieves rather ugly results. The NewGadTools function in MCP is much better.

BY: Massimo Tantignone
WARE: Shareware
SIZE: 419K
FROM AMINET: util/wb/VisualPrefs.lha



There's more heat than light in *c.s.a.misc*.

messages in a group while downloading new posts, but the new posts will not available until the download is complete. A status bar appears while fetching messages but only shows the current message number, not the transfer rate.

The messages themselves are displayed in a separate window. The rendering of text in this window is particularly slow for some reason. *NewsCoaster* supports attachments to posts and can handle the usual colour and style highlighting that mail packages perform.

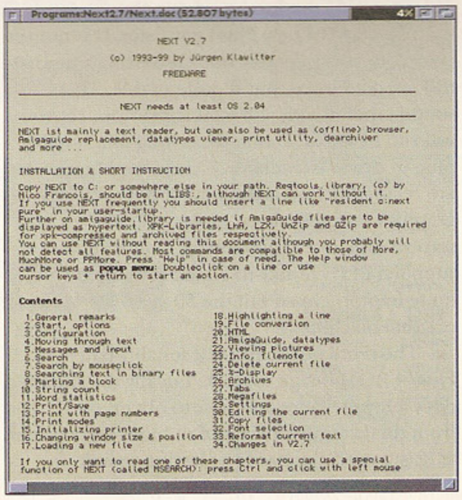
NewsCoaster is an ideal news reader for the usenet novice. It will not appeal to users of Thor or *NewsRog*, but, to be fair, these are both more mature packages. Given another six months' development *NewsCoaster* could become quite accomplished.

BY: Mark Harman
WARE: Shareware
FROM AMINET: comm/news/newscoaster.lha
SIZE: 235K
REQUIRES: MUI

Next 2.7

Next is basically a text viewer. However, it is more than that, because it can recognize and display (albeit imperfectly) AmigaGuide, HTML, RTF, MS Word, DOS and Mac formatted files. It also handles pictures files via the standard datatypes system.

The main window of *Next* is shows the current file and supports ANSI formatting and style codes. A scroll bar is situated horizontally at the bottom of this window. This, oddly enough,



Programs:Next2.7/Next.doc (52.807 bytes) 4%

NEXT V2.7

(c) 1993-99 by Jürgen Klawitter

FREEWARE

NEXT needs at least OS 2.04

NEXT ist mainly a text reader, but can also be used as (offline) browser, Amigaguide replacement, datatypes viewer, print utility, dearchiver and more ...

INSTALLATION & SHORT INSTRUCTION

Copy NEXT to C: or somewhere else in your path. Reqtools.library, (c) by Nico Francois, should be in LIBS:, although NEXT can work without it. If you use NEXT frequently you should insert a line like "resident c:next pure" in your user-startup.
Further on amigaguide.library is needed if AmigaGuide files are to be displayed as hypertext. XPK-Libraries, LhA, LZX, UnZip and GZip are required for xpk-compressed and archived files respectively.
You can use NEXT without reading this document although you probably will not detect all features. Most commands are compatible to those of More, MuchMore or PPMore. Press "Help" in case of need. The Help window can be used as **popup menu**: Doubleclick on a line or use cursor keys + return to start an action.

Contents

1.General remarks	18.Highlighting a line
2.Start, options	19.File conversion
3.Configuration	20.HTML
4.Moving through text	21.AmigaGuide, datatypes
5.Messages and input	22.Viewing pictures
6.Search	23.Info, filenote
7.Search by mouseclick	24.Delete current file
8.Searching text in binary files	25.%-Display
9.Marking a block	26.Archives
10.String count	27.Tabs
11.Word statistics	28.Megafiles
12.Print/Save	29.Settings
13.Print with page numbers	30.Editing the current file
14.Print modes	31.Copy files
15.Initializing printer	32.Font selection
16.Changing window size & position	33.Reformat current text
17.Loading a new file	34.Changes in V2.7

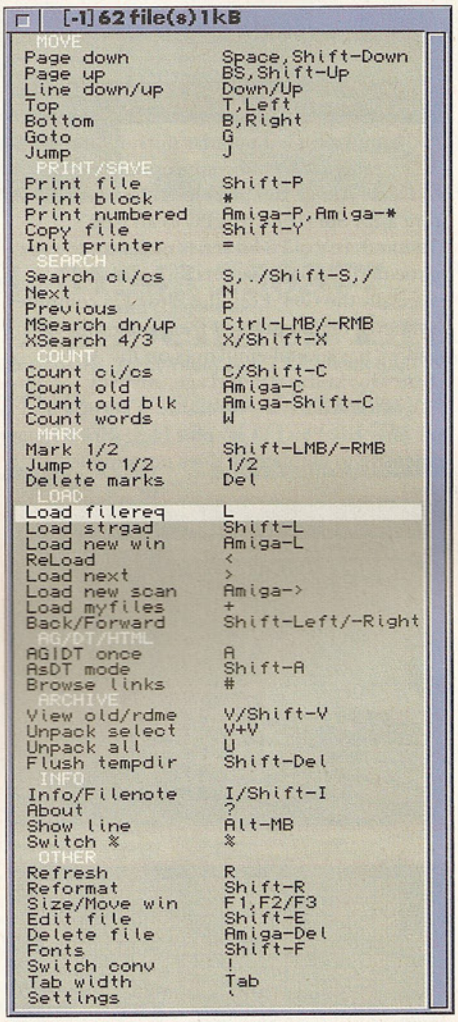
If you only want to read one of these chapters, you can use a special function of NEXT (called MSEARCH): press Ctrl and click with left mouse

allows vertical scrolling through a document, but is counter-intuitive. The update speed of the window lags behind the scroll gadget making exact positioning within a file difficult.

If a hypertext document is being shown, such as a guide or HTML file, links are highlighted and may be clicked to navigate through the document. Image links can be followed, but images are displayed on a separate screen. I could not get this aspect of the program to function at all. Perhaps *Next* cannot cope with the chunky bitmaps that my CyberGraphX screens use. In any event it does not allow you to select the screenmode for displaying images in.

Next has no standard menus. Instead right-clicking pops up a window with a list of commands which are selected by the mouse. The program boasts some powerful features, such as text-marking, word-counting, searching and printing.

I found *Next* awkward to use. It tries to be all things to all people. *Next* performs far too many functions and none of those well enough. It is reassurring, though, to have a viewer which will attempt to display just about any document type you throw at it.



[-1] 62 file(s) 1kB

MOVE	
Page down	Space,Shift-Down
Page up	BS,Shift-Up
Line down/up	Down/Up
Top	T,Left
Bottom	B,Right
Goto	G
Jump	J
PRINT/SAVE	
Print file	Shift-P
Print block	*
Print numbered	Amiga-P,Amiga-*
Copy file	Shift-Y
Init printer	=
SEARCH	
Search ci/cs	S,./Shift-S,/
Next	N
Previous	P
MSearch dn/up	Ctrl-LMB/-RMB
XSearch 4/3	X/Shift-X
COUNT	
Count ci/cs	C/Shift-C
Count old	Amiga-C
Count old blk	Amiga-Shift-C
Count words	W
MARK	
Mark 1/2	Shift-LMB/-RMB
Jump to 1/2	1/2
Delete marks	Del
LOAD	
Load filereq	L
Load strgad	Shift-L
Load new win	Amiga-L
ReLoad	<
Load next	>
Load new scan	Amiga->
Load myfiles	+
Back/Forward	Shift-Left/-Right
AG/DT/HTML	
AGIDT once	A
AsDT mode	Shift-A
Browse links	#
ARCHIVE	
View old/rdme	V/Shift-V
Unpack select	V+V
Unpack all	U
Flush tempdir	Shift-Del
INFO	
Info/Filenote	I/Shift-I
About	?
Show line	Alt-MB
Switch %	%
OTHER	
Refresh	R
Reformat	Shift-R
Size/Move win	F1,F2/F3
Edit file	Shift-E
Delete file	Amiga-Del
Fonts	Shift-F
Switch conv	!
Tab width	Tab
Settings	`

Next has more functions than a Swiss Army Knife.

BY: Jürgen Klawitter
WARE: Freeware
FROM AMINET: text/show/Next2.7.lha
SIZE: 74K

Continued overleaf ➡

ONLINE UPDATE

The Aminet mirror located at Imperial College's SunSite in the UK has been down for the last few weeks. Rumour has it that the site was cracked and all the back up files were corrupted; hence the site required complete reconstruction. At the time of writing they have a limited FTP service in operation and the log-on message informs you that a major hardware and software upgrade is being performed – no mention of a security breach. Until full operation is regained, British Amigans are probably best off using the Aminet mirror at Paderborn, Germany. And, no, you don't need to able to speak German to use this site.

In AF126 I had a look at and enthused over *FACTS*, a handy little tool that ensures that your Amiga's clock is always set to the correct time and timezone while your machine is hooked up to the Internet. Previous versions lacked localization – a bit of an anomaly for a program that purports to localize your system. Version 2.8 corrects this oversight and ships with English and French translations. Get a copy from the Aminet at comm/tcp/facts.lha.

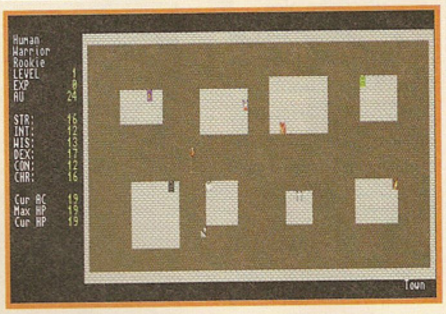
Angband 2.8.3h

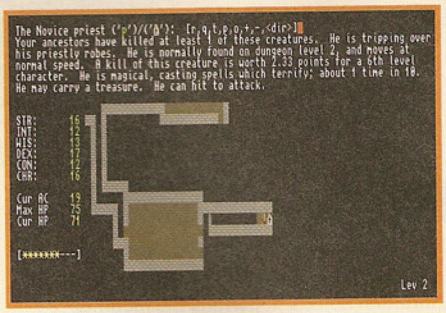
The first computer games were all inspired by role playing games such as *Dungeons and Dragons*. Maybe this is simply because the same geek mindset is required for playing RPGs as is for programming computers, who knows? Perhaps the most famous of these pioneering games was *Adventure*, the program which launched a thousand text adventures. Another was *Rogue*. *Rogue* was more obviously RPG based in that you played a character with the usual attributes like strength, dexterity and charisma and featured rule-based combat and magic systems. It presented you with an overhead 'graphical' view of the game world – a map constructed from simple text characters – which you could move around in and interact with. *Rogue* also inspired many clones, including the famous *Ultima* series and others such as *Hack*, *Larn* and *Moria*.

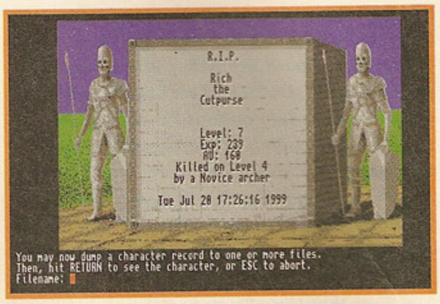
Angband is another single player role playing game in the tradition of *Rogue*. The aim is similar: to fight and explore your way through the 100 dungeon levels and ultimately kill Morgoth, the Lord of Darkness. It features the same graphical perspective as *Rogue* but, on machines with bitmap capability such as the Amiga, the text-only icons of the original are replaced by more easily discernible bitmap icons. The rules of the *Angband* world and more advanced, too. The monsters that you meet are intelligent: they can sleep, open doors, and run away.

In today's world of texture-mapped 3D graphics, *Angband* may seem woefully crude. But the fact is that this genre of game has evolved and has been continually played for twenty years. The fundamentals of the gameplay are simple and yet there is something terribly enticing about it. It's the sort of game that you can load up and play and then suddenly realise it is 4 o'clock in the morning.

The only fault I can find in this Amiga version of *Angband* is that it does not take full advantage of current machines. The PC version of the game has much larger, more colourful graphics which could easily be used on the Amiga. It also does not allow you to select a screenmode for the game to play in. PAL is the default, but you can coerce this with a mode promotion tool.







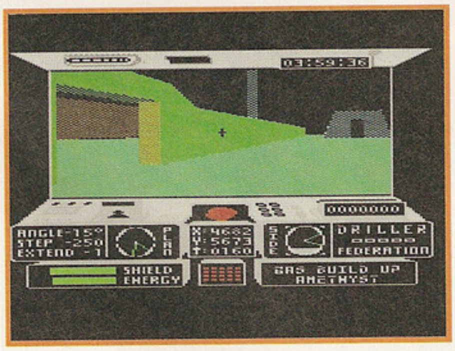
Twenty years on, *Angband* proves that the *Rogue* genre is still going strong.

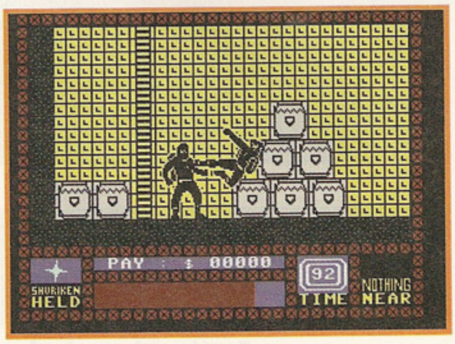
Nevertheless, download a copy, turn the lights down low, and get monster bashing. And if you fancy a harder challenge, try *Zangband*: game/role/zangband.lha.

BY: Various
WARE: Freeware
SIZE: 756K
FROM AMINET: game/role/angband.lha

Flamingo V1.06

Emulation is a popular pursuit on the Amiga. Given the appropriate software, an Amiga can pretend to be anything from a ZX Spectrum to a PC to an N64. Commodore's old 8-bit series of computers are particularly popular targets for emulation, especially the C64. Even the Plus/4, a computer that never really emerged from under the 64's shadow, has several emulators on the Amiga. Quite why, in this day and age, anybody would still want to run Plus/4 software is beyond me, but since the Plus/4's graphic hardware is less expensive to emulate (it does not support hardware sprites) Plus/4 emulation at least has the advantage of being faster than 64 emulation. The games do tend to be cruder, though.

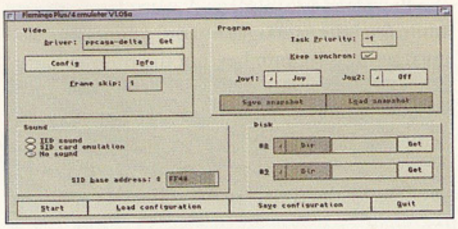




Get into retro gaming with *Flamingo*.

Flamingo is a new Plus4 emulator. It is not yet complete, most notably not supporting the .D64 disk image format, but is quite usable. The sound emulation is still a bit ropey, too. *Flamingo* will run in any screenmode as long as a suitable plug-in driver is available. CyberGraphX screens are recommended if you have a ZorroIII graphics card. However, respectable screen refresh rates are achievable in AGA with the supplied PPC chunky-to-planar plug-in. It will quite happily churn out the 50 or 60 fps of the original machine.

The emulator requires a suitably-patched Plus/4 ROM image to work. Luckily the supplied docs tell you where and how to obtain these from the Internet. This is of dubious legality, but at least avoids the hassle of having to link up your Plus/4 to an Amiga. *Flamingo* will not work with the Plus/4's built-in productivity software. This is probably an advantage, since these were far too buggy to be of any use.



Configuring *Flamingo* is a piece of cake with its straightforward interface.

Flamingo: an odd name for an odd product. But it does exactly what is says on the tin

BY: Almos Rajnai
WARE: Giftware
FROM AMINET: misc/emu/flamingo.lha
SIZE: 81K

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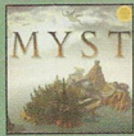
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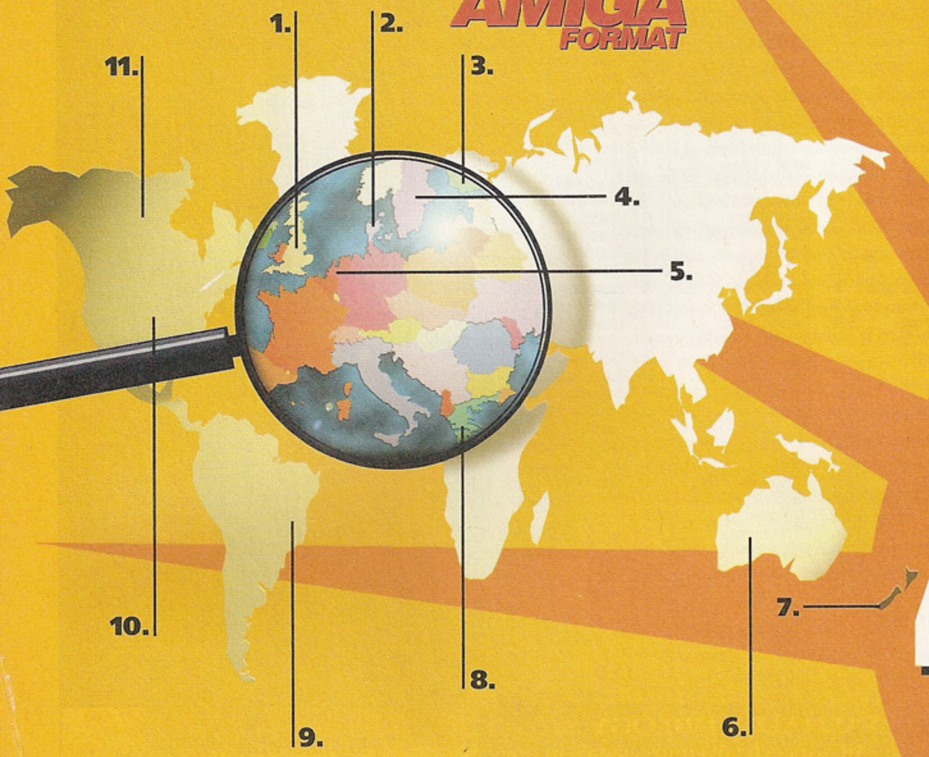
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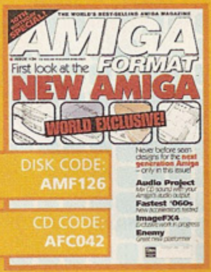
Issue 127

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A complete painting and drawing package. How can freeware be so good?

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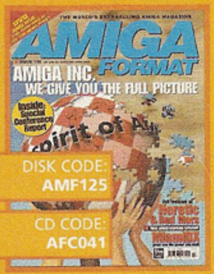


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Issue 126

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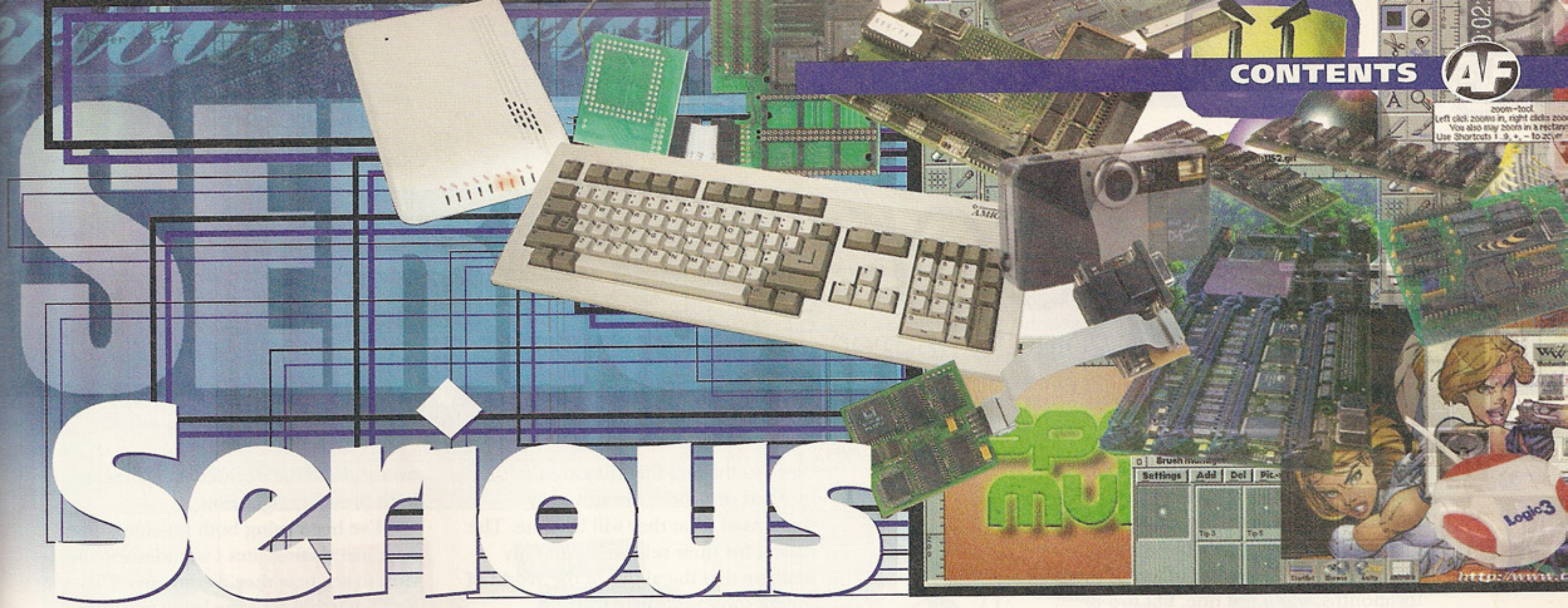
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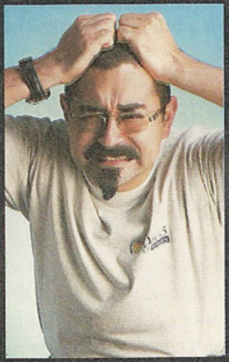
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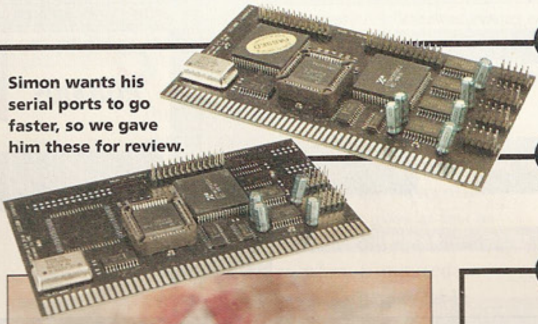
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Four score years and ten ago this great page was created. Now it is time to lay it to rest. Next issue sees a whole new concept in intro page management – we're going to ditch it. Fear not, however, you won't have to miss my salutory words greeting you and bringing you into the section we like to call "Serious". Next issue we'll just be revamping all the intro pages in order to give you more magazine to read.

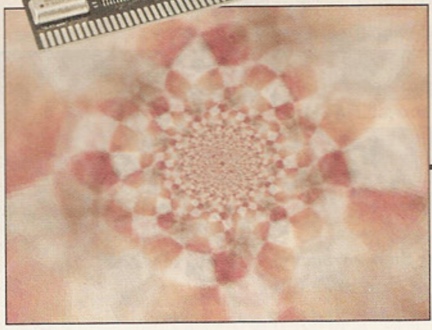
Anyway, enough of next month, what about right now? With WoA just behind us there's always a plethora of new goodies to be reviewed, however, some of them take a little more reviewing than others, and so the Serious section looks a little thin this issue. We've had to carry over Tornado 3D again, since I'm not altogether happy with the way it works, and ImageFX 4 can't very well be reviewed in the same issue Kermit is discussing its development! Anyway, I hope that what's here will meet your approval, and just think how fat this part of the mag will be next issue...



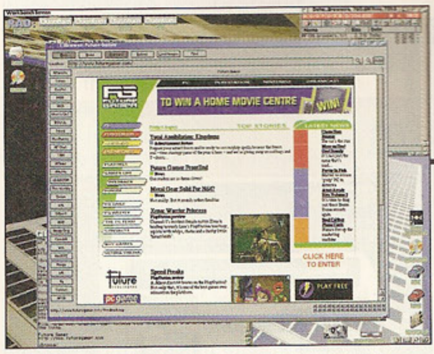
Ben Vost



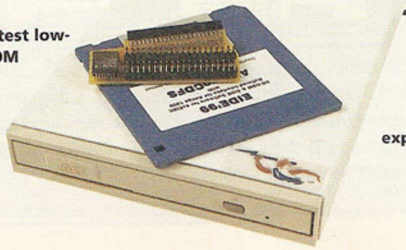
Simon wants his serial ports to go faster, so we gave him these for review.



Create your own demo, man.



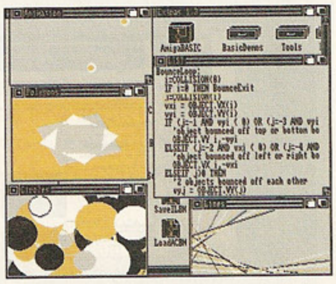
What's new in the browser world? Everything! New versions of *Voyager* and *iBrowse* are about to hit our shelves.



Power's latest low-cost CD-ROM drive will hopefully convince those still clinging to their floppies.



In the last part of our WIP Kermit explains about *IFX*'s new animation functions.



See the amazing things you can do in BASIC!

Browser Preview!

You knew it was going to happen. Two issues after we do a comparison of browsers, the two most popular get an upgrade. **Ben Vost** previews them.

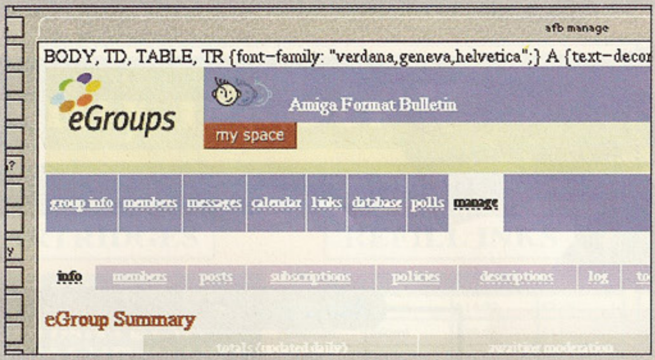
Sure enough, I ask Neil Bothwick to compare the current state of Amiga web browsers on the grounds that there probably wasn't going to be a new version of any of them for months, when not one, but two of the best-known browsers on the Amiga suddenly pop up in new versions. Now, the reason that this is a preview rather than a full-blown review of these boys is down to the fact that they aren't finished yet – both are still early versions of what they will become. The reason for their release? I can only imagine that the allure of the World of Amiga show was so great that it prompted the release of these new versions. I'm also positive that by the time you read this, newer versions will have been released, so don't worry overly about the decidedly beta feel to both browsers right now.

I've been using both for some time now, just visiting sites I would normally visit, to see how they'd compare. This isn't a harsh test of the browsers – I'm not trying to pull them apart – but I'm looking at the kind of performance I would expect in everyday use, visiting the sites I use.

IBROWSE / VOYAGER

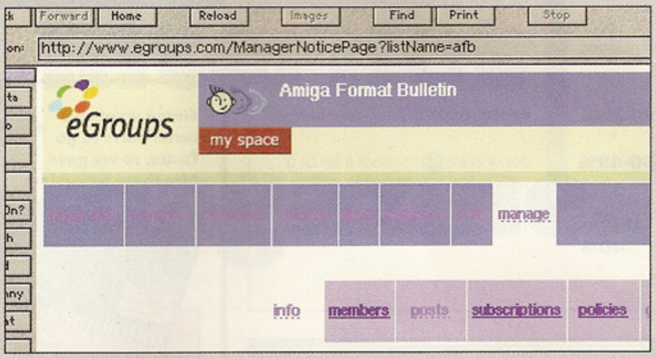
afb http://www.egroups.com/group/afb/

IBrowse: The latest beta I have doesn't actually work as well as the version that was released at the WoA show, messing up table backgrounds, etc. However, iBrowse does work with coloured links (using a <FONT COLOR> tag inside an <A HREF> tag) which Voyager doesn't. The one major problem with both iBrowse betas right now is the fact that you can't change your font settings, and they are preset to tiny versions of Times – not nice.



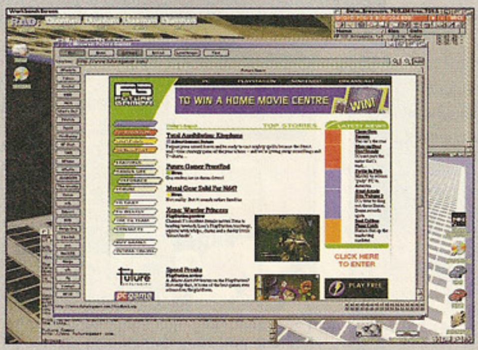
iBrowse wins this round by displaying colour in the links.

Voyager: Voyager lays the site out well enough (and at least you can have the fonts you want!) but it's still slower than iBrowse at laying out tables. Another problem I've noticed is that sometimes pages that you've altered (such as settings for a particular member of the list) don't actually get updated when you hit the "Apply Changes" button. Actually they do, but to see the changes you have to hit Voyager's "Reload" button to get them.



Future Gamer http://www.futuregamer.com

IBrowse: I didn't expect much from iBrowse based on this site's previous performance, but they've obviously edited their HTML. iBrowse's JavaScript implementation seems to cause more bother than Voyager's, and the first pre-release of iBrowse 2 didn't see the JavaScript at all (the buttons down the left side were static). However, all that's changed now and iBrowse displays the site nicely with moving buttons. However, the "Latest News" bit down the right-hand side is oddly shaped, but it may be down to the fact you can't change iBrowse's fonts.



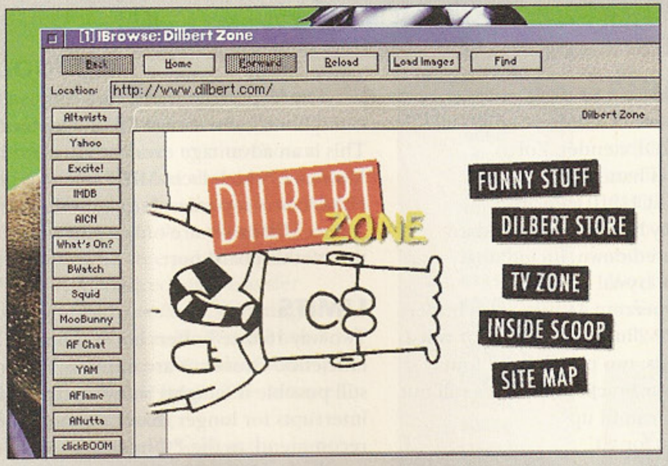
Future Gamer works nicely on both browsers.

Voyager: Voyager didn't used to see this site at all – it would get stuck, issuing a "VBscript error", but now it works nicely as can be. The buttons down the left animate, and the "Latest News" panel on the right is the correct shape and size. On other Future sites, such as the one for our mag (http://www.amigaformat.co.uk) the subscription form seems okay (I didn't test it), which can't be said of iBrowse.

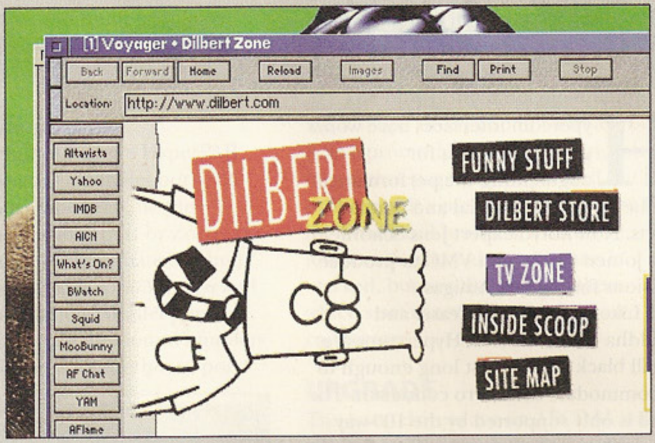


Dilbert http://www.dilbert.com

No Javascript errors, but then no moving buttons or anything. iBrowse copes better with the Quicktime movie page, but still can't play the movies, although it does open up an extra window. This usually crashes iBrowse fairly severely.



Voyager complains about Javascript problems when you go to the site, but then works fine. The buttons on the main screen are animated, but it can't open a fresh browser window to show the Quicktime movies.



While Voyager complains about the JavaScript on the site, iBrowse doesn't show the animating buttons.

Czech Amiga News http://www.realdreams.cz/Amiga/

iBrowse wins. Much, much faster table layout than Voyager (still).

The Onion http://www.theonion.com/

iBrowse wins. Again, table layout speed an issue, but in this instance also coloured links.

Wirenet http://www.wirenet.co.uk

Voyager wins. iBrowse doesn't seem to work with as many Javascript-enabled websites as Voyager. Neil Bothwick's site is just one of many that has animated buttons which remain lifeless in iBrowse.



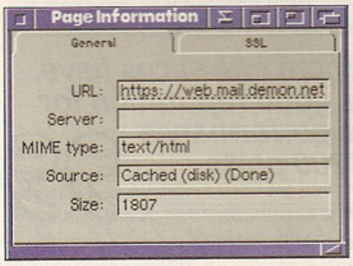
***Voyager* plays some *Shockwave* files, but the picture of Kyle here should be outlined in black and he should have a mouth.**

OTHER FEATURES

PRINTING: Printing has long been a bugbear for Amiga browsers - the laughable attempts made at printing pages from any of the earlier versions are shamed by the effort put in by both these browsers. *iBrowse* has a very good print facility with PostScript, although there are still problems with scaling. V^3 offers much better printing facilities through the preferences printer driver, but this doesn't seem to be working properly right now.

USER INTERFACE: It has to be said that *Voyager* wins hands down here. Although *iBrowse* has got the extremely nippy multiple-browsers-in-a-single-window feature, *Voyager's* ease of configuration has that feature beat, and the fact that you can now tear off toolbars from the main window to have them floating separately is a nice touch. *Voyager* also now highlights the tags in the View Source page, and also allows you to update the page that's currently being viewed à la *iBrowse*.

SPEED: Both browsers are currently unoptimised, so neither goes as fast as they will, but *iBrowse* is still the leader in the speed stakes, when compared especially to *Voyager*'s sluggish table layout. However, they are both slouches for HTML layout when compared to Allan Odgaard's HTMLView demo, but that's offline only.

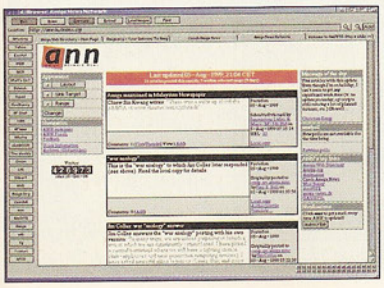


***Voyager* shows you all the info about a page, including its SSL cert (if you really want to know).**

SECURITY: *Voyager* wins here with excellent information about sites, and certificates for SSL v2 and v3. I had no trouble browsing secure sites from within the firewall at Future – something that *iBrowse* has always given me trouble with.

URLS: *Voyager* has a very handy URL completer that means that if you type in a single word (like, say "volvo") it will take a guess and bung a "www." for'ard and a ".com" aft, but both now have very good URL completers (for URLs that have been previously visited). The Fastlinks facility for both is good, with *Voyager* possibly taking the edge since you can take the fastlinks section right out of *Voyager's* main window, allowing you more space for extra links. However, *iBrowse* has a really neat feature with its URL prefs – you can turn features on or off for specific websites according to your wishes – very handy for those sites with background music, but it's a shame it doesn't allow you to enable or disable Javascript in the same way.

EXTRAS: Voyager has a Shockwave plug-in, but it's very slow, doesn't do sound and doesn't handle outlined images very well right now. Both browsers have a documented plug-in structure, but there are no other external plug-ins for either at the moment.



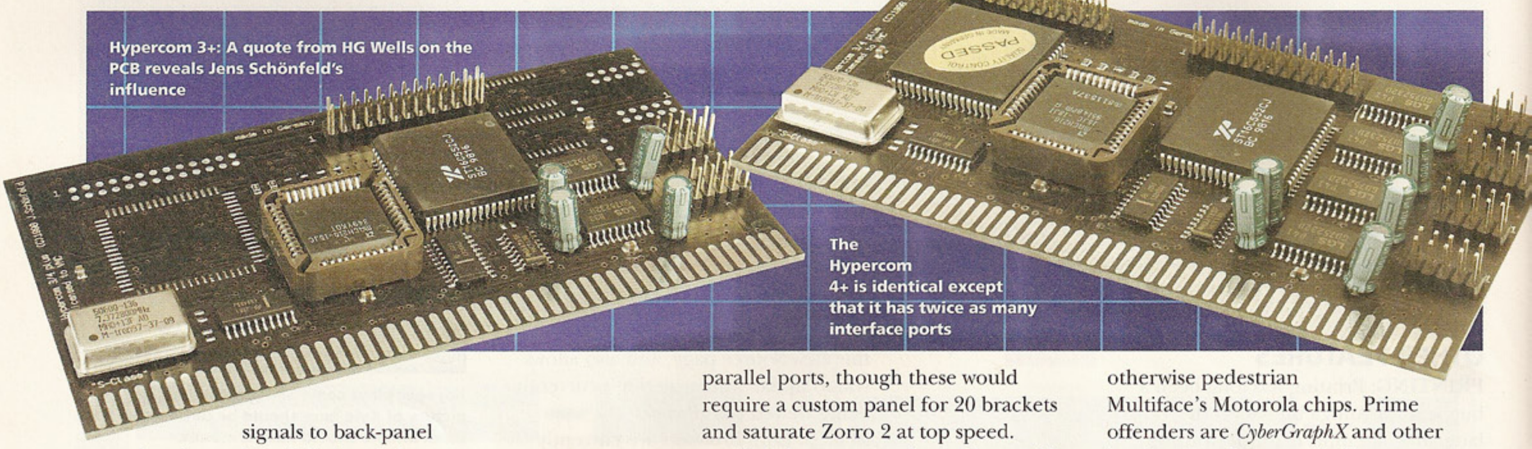
***iBrowse* allows you to view multiple sites inside one browser window, and doesn't slow down at all doing it (if you have the memory).**

OVERALL

Both browsers are going on a storm, and there'll be adherents to both, just as there have always been. The other browsers, like *AWeb* or the vapourware *AmozillaX*, *iProbe* or *Dry Ice* aren't worth waiting for when these two will do most of what you need on the web. If pushed, I'd have to say that I think *Voyager* has the edge right now, but I'm sure the choice will be a lot more difficult to make by the time you read this.

Hypercom Zorro

Simon Goodwin checks out the 3+ and 4+ revisions of Hypercom


Hypercom 3+: A quote from HG Wells on the PCB reveals Jens Schönfeld's influence

The Hypercom 4+ is identical except that it has twice as many interface ports

Hypercom interfaces have won a good reputation for augmenting the performance of the stock A1200 serial and parallel ports. Now Zorro expert Jens Schönfeld has joined forces with VMC to produce versions for big-box Amigas.

Like his latest CatWeasel and Buddha cards, the new Hypercoms are small black boards, just long enough to accommodate the Zorro connector. The card is only supported by the 100-way Zorro slot, so if your socket is badly worn it might not be tight enough. Flying leads carry serial and parallel signals to back-panel brackets, where full-size cards would end.

You need one bracket for each parallel socket, a standard 25 way female D type matching the back of the Amiga. Two serial connectors fit on a single bracket as one uses the 25 way male D type, conforming to Amiga and RS-232C standards, while the other has a cut-down PC-AT type nine pin D, familiar to Amiga users as a joystick or mouse socket. You can connect PC serial mice here, but not Amiga-specific controllers; despite the mechanical correspondence, this is a serial rather than controller port.

VERSIONS

The Zorro Hypercom 3+ has one parallel port and two serial ones, controlled by one ST16552 chip, as found in faster PCs, IOBlix and GVP's full length IOExtender. Zorro interfacing is handled by a small socketed MACH210 gate array supported by half a dozen standard chips, soldered down, including a 7.3728 MHz crystal oscillator.

The Hypercom 4+ uses extra buffers and two 16552 interface chips, for twice as many ports: two parallel and four serial, on four brackets. If that's still not enough you can fit up to five cards, for 20 serial and 10 parallel ports, though these would require a custom panel for 20 brackets and saturate Zorro 2 at top speed.

Serial rates range from teletype 50 baud to 460,800, about 58 Kilobytes per second, through all integer sub-divisors of 460,800. This rule gives a slight error on the MIDI rate, but it's close enough.

> "Hypercom interfaces have won a good reputation for augmenting the performance of stock A1200 ports."

The table lists typical rates, and some oddities. The parallel ports claim transfer rates up to 800 K per second, ample for any current application or peripheral.

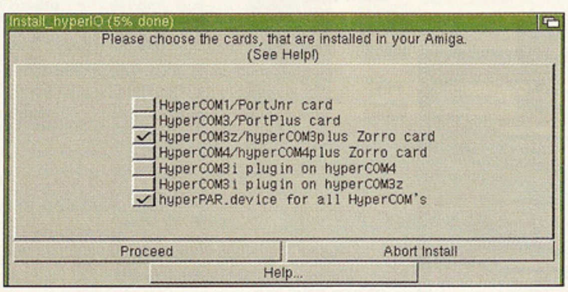
The Hypercom ports work with camd.library and Amiga MIDI adapters. This is an advantage over bsc's Multiface, which lacks MIDI and Hypercom's top rates, but sadly old Amiga MIDI software only works with the motherboard port.

LIMITS

Two-way 16 byte buffers boost transfer efficiency. Over-runs are minimised, but still possible if naughty software turns off interrupts for longer than Commodore recommend, as the PC interfaces lack the hardware handshaking of the otherwise pedestrian Multiface's Motorola chips. Prime offenders are *CyberGraphX* and other bus-hogging Zorro cards. You must avoid performing critical operations with these at the same time as fast serial input; the same clash can affect IOBlix, GVP and similar fast I/O cards.

The shell COPY command shovelled 211,602 bytes from IDE to RAM via null modem link from HC3ZSER00 to HC3ZSER01 in 18.6 seconds at 115,200 baud, averaging 11,376 bytes/second. At 230,400 baud Hypercom managed 22,463 bytes per second, both ways, without obviously slowing the CPU. But at the top rate of 460,400 baud, the interrupt overhead clobbered multi-tasking – mouse pointer movement was jerky, and the system clock missed several seconds during a large COPY, although the transfer rate exceeded 41K per real second.

The serial ports work as advertised, but the rest of the A4000 struggles to keep up with the top speed. Many people happily use Hypercoms with fast modems and ISDN



The installer supports a bewildering variety of Hypercom variants

ALTERNATIVES

RIVAL REVIEWS - ZORRO MULTI-I/O INTERFACES

RBM	IOBlix	AF121	82%	£ 89.95
GVP	IO Extender	AF93	76%	£ 69.95
bsc	Multiface 3	AF93	71%	£ 79.95
Zeus	Spider	AF96	65%	£299.95

connections, so you'll only feel these limits if using several cards, or running all the ports flat out. I got similar results on Mark 1 and Mark 2 Cyberstorm 68060s, both suffering as total transfers approached a million bits per second. Output seems to be the bottleneck, rather than reception, and VMC are investigating further improvements.

GOODIES

There's no shortage of extras from Aminet, though the installer just shovels the archives to your chosen directory as VMC say they are forbidden from modifying the shareware archives. You get *NComm 3.06*, a terminal emulator with free public keyfile, the *Hydra 1.0r9* bidirectional transfer package, *PortHandler41*, updating Commodore's generic Workbench 3 code, *PrintManager39*, a shareware spooler, and *AuxHandler2* for remote Shell programming.

You might add *SerMouse* or *NewMouse*, to access PC pointing devices, now you have serial ports to spare. VMC do not bundle a mouse driver as they reckon full compatibility would require a rewrite of Commodore's Input device, but the Aminet drivers work as well on Hypercom as they do on rival serial ports.

The obvious omission, as with IOBlix, is the lack of Workbench preferences for the serial and parallel ports. Older boards like GVP and Multifaces, and even Ateos, have windows to set the serial speed and protocol for each port, and configure the parallel interface. Like RBM, VMC expect you to set these with a mountlist, or by tacking parameters onto the device name when you open it.

The necessary files to mount the ports, at a default speed of 11,5200 baud, are included in the 'port handler' archive, but you must extract and copy these manually, editing them as necessary for other speeds or protocols. VMC reckon most people will just configure the device name, unit and speed directly into their communications software.

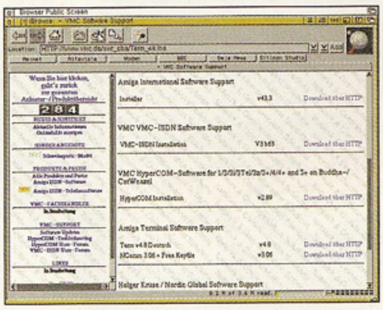
Device names identify the type and number of the board, from "hyperCOM30Z.device" for the first twin-serial card, to "hyperCOM44.device" for the fifth four-porter. There are a dozen drivers supplied, each around 11K long, customised for different hardware addresses. The unit number, 0 to 3, selects between serial connectors on each board.

BAUD RATES

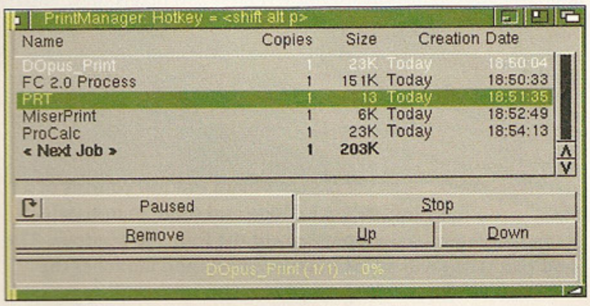
50
75
110
300
600
1200
2400
4800
7200
9600
12000
14400
19200
30720
38400
41890
46080
51200
57600
65828
76800
92160
115200
153600
230400
460800

PARALLEL

It's a relief to find a single HyperPAR device for up to ten parallel ports, on any flavour of Hypercom; be they daughterboard, clock port or Zorro, the ports are simply differentiated by unit numbers from 0 to 9. *PrintManager* and Workbench 3.5 allow parallel port redirection, but parallel sound samplers only work with the motherboard port.



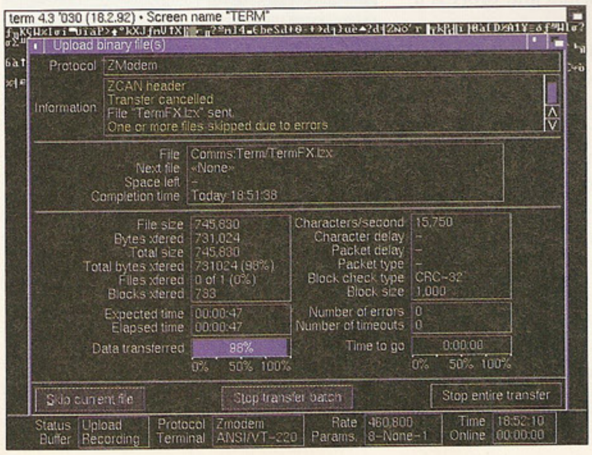
VMC have commissioned a translation of their current German web pages



The shareware *PrintManager* handles spooling and print redirection

The Hypercom parallel port is potentially a lot faster than the Amiga motherboard one. At best, it sent 6.9 MB of PostScript to a laser in 40 seconds, versus 155 seconds for the same data from the A4000T parallel port. Another test delivered 24 pages of HP-PCL5 graphics at 600 DPI to a 128 MB Lexmark laser printer in a minute, rivalling photocopier speeds. You won't notice much advantage unless your printer has a big buffer. With budget printers and scanners that handle a line at a time, the device is the bottleneck, rather than the port.

Hypercom drivers are now available for the Amiga port of NetBSD Unix, and being tested for APUS and Linux68K. The *ScanQuix* author has Hypercom 4+ working nicely with the software originally written for IOBlix. There is no *ProNet* implementation yet for the Hypercom parallel port, but VMC say it could be easily adapted from the GVP version. A parallel ZIP driver with full Amiga support for diskchange and SCSI commands is not yet ready for release.



***Term* manages Hypercom ZModem transfers marginally faster than IOBlix**

DEUTSCH

An installer script transfers the latest devices, libraries, documentation and 'goodies'. The floppy contained a short English readme file, but the Install_HyperIO_English script had German 'help', and the English HyperIO.guide just referred readers to updates on the German-language VMC bulletin board and web site.

The only printed documentation was a single sheet, also in German, but Active promptly faxed me an English instruction page when I pointed out the deficiency. It's pretty obvious how to fit the board and brackets, with no jumpers to worry about. Pin one is marked, but not the port numbers, which start at zero nearest the Zorro connector.

UPGRADE

The latest drivers are on AFCD44, with a helpful 47K English AmigaGuide, almost 20 A4 pages when printed, noting terminal, *Genesis* and *Miami* optimisations. The updates offer provisional fixes for Mac emulation, *Miami* and some 68040 boards. It also supports the original Hypercom and daughterboard expansion ports.

Active contend that the vast majority of UK Amigans mainly need a faster serial port and have 68030s and line-at-a-time printers which show little benefit from quicker interfacing. They acknowledge that English is VMC's weak area, which is why they produced their own page of instructions. VMC's A1200 products already have printed documentation in English.

The Hypercom 3+ delivers the features of GVP's classic IOExtender, bar *ProNet* and the GUI front end, at a much lower price, while the 4+ is a bargain compared with IOBlix. Hypercoms work well, cost £20 less than rivals, and seem sure of further development and support

SUPPLIER: Active Technologies 01325 460116 www.active-net.co.uk
PRICE: Hypercom 3+ £49.95
Hypercom 4+ £69.95

Pros and Cons

- **+ Good top speed on serial and parallel**
- **+ Plenty of ports and expansion potential**
- **− Software installation could be simplified**
- **− English lags behind German documents**

OVERALL VERDICT:
High performance and good value

84%

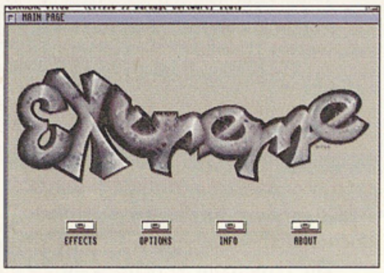
Extreme 1.50

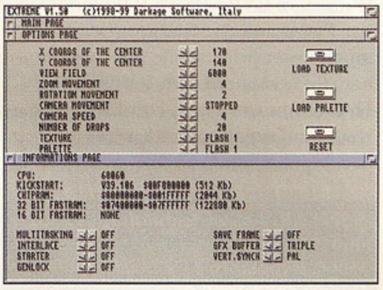
Richard Drummond dons his shades before looking at ***Darkage Software***'s video effects generator.

At this year's World of Amiga show I was accosted by an enthusiastic Italian bearing a copy of *Amiga Format* which he opened up to the PD Select pages. Oh no, thought I, he's going to complain about one of my reviews. But he didn't. He thanked me for my review of *Extreme* and asked me if I would like to review the full version.

> *Extreme is a real time effects generator – it creates those swirly plasma effects that are so common in demos.*







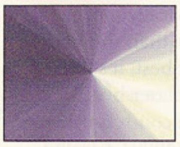
Extreme is let down by its restrictive interface.

WHAT IS IT?

Extreme is a touted as a realtime heavy effects generator. What this means to the layman is that it creates those swirly plasma effects that are so common in demos. You supply it a bitmap and a colour palette and it mathematically transforms it in real time on screen in a variety of user-definable ways for your visual pleasure. Does it have a purpose? Well, its intended use is for creating interesting backgrounds for video titling, etc.

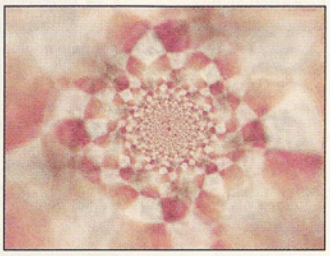
Extreme is supplied on two floppies in a neat plastic wallet. No printed instructions are provided, but the guide file is fairly complete. Most of *Extreme's* features are fairly obvious, anyway, and on-line help is provided within the program.

A set of extra bitmaps form part of the package. More are available from the Aminet (and this issue's coverdisc).









Believe it or not, this effect started off life as a Boing ball.

GETTING IT TO WORK

When *Extreme* is started it pops up a requester asking you to select a screenmode for the interface to open in but it limits you to selecting only those modes which are 640 pixels wide. And no matter which mode you choose the resulting screen is 256 pixels high. Also, all the windows that the program opens are non-sizable. This combination is frustrating since it does not allow you to make full use of screen size even if you force the screenmode with a promotion tool.

Extreme's main window consists of a colourful logo and some buttons which pop up any of the four sub-windows. The first of these selects and launches the desired effect. This will continue running until you click the mouse again.

The options window allows you to tweak the select effect by changing such attributes as 'Camera speed' and 'Rotation movement'. This window also allows you to select the bitmap and the palette – either a built-in pair or by loading them in. Usable bitmaps must be stored in a raw chunky format and the palette stored separately. It would be more flexible if the program could use any old bitmap file format and process it internally. Also, it is awkward to have to select the bitmap and palette separately.

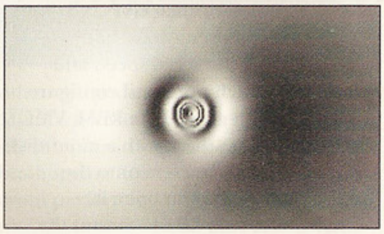
The third window, called Info, supplies some information about your system and provides more options. Here you may turn-off multitasking during effects generation (useful if you are short on CPU power) and select whether the effects are generated on a PAL or NTSC, interlaced or standard screen. You may also turn on synchronization with a genlock and choose a 'Save Frame' option. This last will save the final frame of an effect to the RAM disk – handy for getting screen grabs when reviewing this product.

The final sub-window is an about window which gives some information about Darkage software.

CONCLUSION

The effects that *Extreme* produces are potentially excellent. Achieving good effects is rather hit-and-miss affair, though. You have to select the bitmap, configure the options and then launch the effect. If it looks terrible you have to cancel it and go back to tweak the settings some more. It would be so much more quick and easy if it were possible to modify an effect's parameters whilst it was running. A preview option to view the selected bitmap would be handy, too.

Having said that, *Extreme* is a unique piece of software and straightforward to use. It can produce some jaw-dropping visual effects, especially with good bitmaps. Unfortunately, I doubt that many will find a practical use for it.



Static screenshots do no justice to the splendour of *Extreme's* effects.

DEVELOPER: Darkage Software
+39 0347 7710333
http://www.idealia.net/darkage
PRICE: 10.32 Euros (currently about £7)
REQUIRES: AGA Amiga with 1MB Fast RAM

Pros and Cons

- \+ Capable of producing some stunning effects
- \+ Great value for money
- \+ Online help
- − Inflexible GUI

OVERALL VERDICT:
Loads of fun, but not very practical.

81%

Power CD-ROM

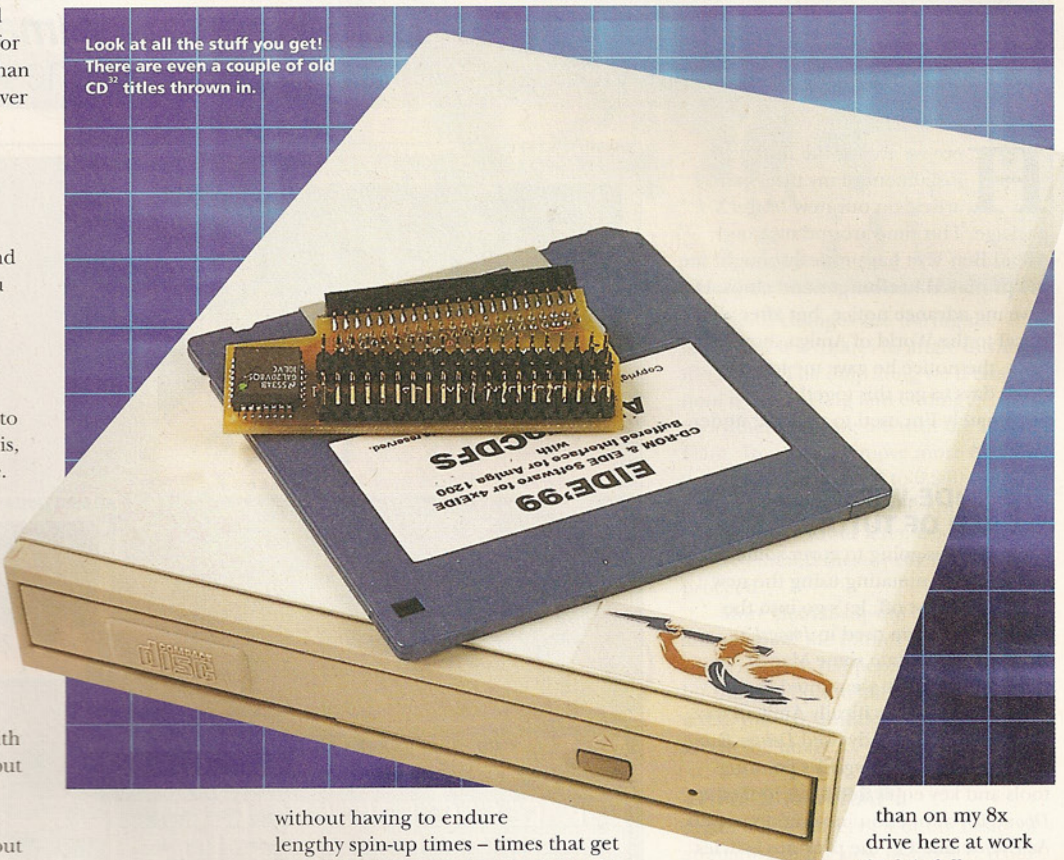
People still releasing CD-ROM drives? People still not got a CD? Ben Vost wonders...

Power Computing have offered Amiga users CD-ROM drives for quite some time now (more than six years), and they've been getting ever cheaper, faster and simpler to install. The latest drive from them comes complete with *EIDE99* and one of Power's new four-way IDE splitters (enthusiastically reviewed by Simon Goodwin in *AF*124, page 47, 92%) and is a doddle to fit. By now, most of you will have had some experience of plugging in one of the many IDE adaptors available, but Power's is the neatest yet, fitting nicely under the keyboard. The drive itself is nothing to really shout about, being based, as it is, on a laptop 8x ATAPI CD-ROM drive. The drive doesn't eject all the way, and has to be pulled out by hand, but the it is practically silent in operation, has a very tiny footprint and looks nice in its enamelled case.

The Eyetech drive we were using had a big bonus in the form of audio pass through cables that allowed you to mix your CD audio with your Amiga's in a very easy fashion, but then, that drive is a more expensive than this one, and also comes with a much larger power supply, and without the nifty IDE adaptor.

People will also be saying that an eight speed drive is passé, that they want a 32x, 40x or even 44x speed unit, but at the end of the day I can honestly say that it's no faster – I have a 24x SCSI drive in my Amiga at home and in fact it's actually slower than the 8x IDE drive I have in my A4000 here. Why? Because of the spin-up time of the drive. 8x is about the most a CD-ROM drive can do without having to endure lengthy spin-up times – times that get worse the faster the drive is. It may be a huge advantage to have a 24x drive if you were copying a single 400MB file off a CD, but how often does an Amiga owner need to do that? Most Amiga CDs are full of little files where the difference between 24x and 8x is infinitesmal. I wish I hadn't replaced my 4x drive now…

Anyway, the upshot of this review is the fact that Power's new CD-ROM is pretty good. Good value for money, good performance and good looks, let down by only two things. One is the pull-out drawer; the other is the lack of an audio pass-through. The pull-out drawer is the worse of the two problems, although it's no biggie. The way it works is that you press the eject button, the drive pops out a little way and you have to pull it the rest of the way out. This is actually quicker to do than on my 8x drive here at work which is fully motorised, although your mileage may vary. The audio passthrough is a shame. Other than that, you've got a really nifty drive, in nice packaging that works really well for your £70 notes. Get it.



Look at all the stuff you get! There are even a couple of old CD[32] titles thrown in.

> "Power's new CD-ROM is pretty good. Good value for money, good performance and good looks."

WHY BOTHER WITH A CD?

Why?! Actually, you may be right. £70 is a lot of money to spend on something you're not sure you need, so here are a couple of reasons:

- **The AFCD. Instead of getting about 2MB of stuff every four weeks with AF, you'd get more than 600. In addition to game and serious demos that we would never be able to fit on floppy, we also have a vibrant reader contribution section that contains games, pictures, animations, tools and WB screenshots.**
- **Everything else. More and more software is coming on CD these days. The latest games, new commercial software and more. It's just too expensive to put things onto floppy now, and much simpler, for the user and supplier, to just deliver a CD.**
- **Music. A side effect this, rather than the only reason you'd want a CD-ROM drive, but being able to play music on your CD-ROM drive while you work is quite a nice side effect...**

SUPPLIER: Power Computing (01234) 851500
PRICE: £69.95
REQUIREMENTS: A1200

Pros and Cons

- \+ Tiny and good-looking
- \+ Extremely quiet
- \+ Good price
- − No audio pass-through

OVERALL VERDICT:
A very nice drive, and great for a beginner

85%

ImageFX 4 W.I.P. Codename Adrastea

Kermit Woodall Completes his sneak preview of ***ImageFX 4*** which creates animation for video, as well as animation for the web.

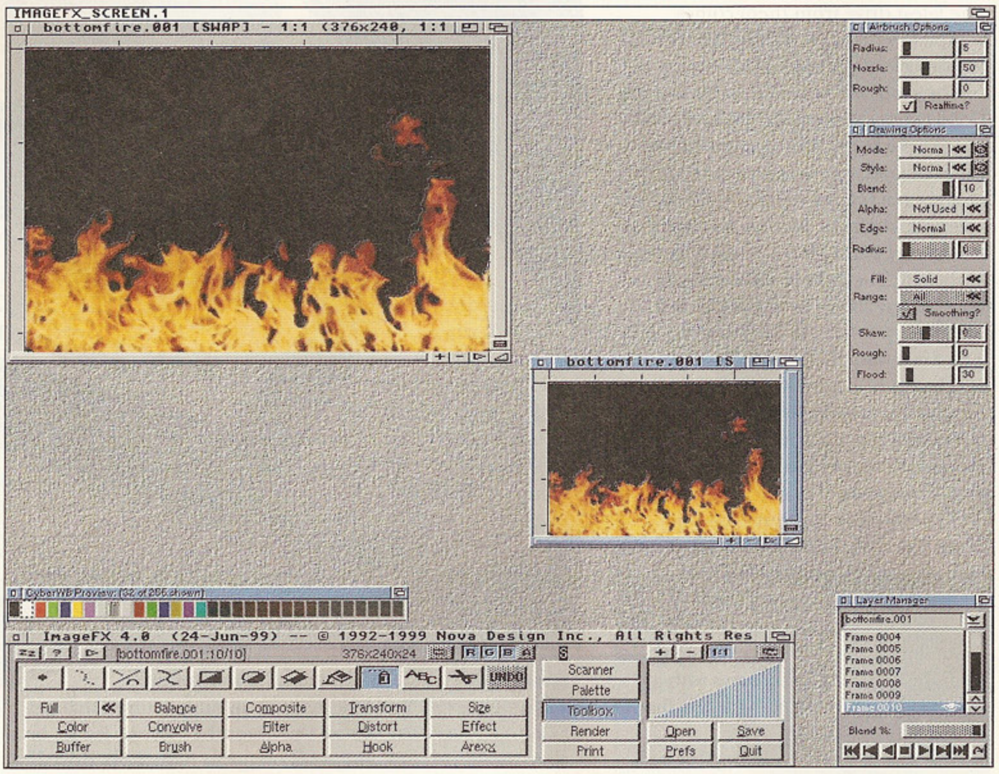
Here we are for the final instalment of my three-part article on our new *ImageFX 4* package. This time around my good friend Ben Vost has properly bought me the promised beefburger and chips. He gave me advance notice, but after all my travel to the World of Amiga show and back, the notice he gave me left me three days to get this together. Fortunately I'm used to working under pressure.

THE WIDE-WIDE WORLD OF TUTORIALS

This article is going to cover some of the concepts of animating using the new *ImageFX 4*. First off, let's go into the animation system used in *ImageFX*. Rather than imitate some Mac or Windows program we wanted to do animation in a specifically Amigan way. Since *ImageFX* already used *Deluxe Paint* as inspiration for *ImageFX*'s painting tools and key equivalents, we looked to *Dpaint* for animation inspiration as well. As I've detailed in the previous articles we also took inspiration from other sources. The result is an animation system that is rather easy to use, fast, and very much in the style of other Amiga programs.

By now you should have *ImageFX 4*, if not, run out and buy a copy. We'll wait. Got it? Okay, thanks. Let's proceed now.

The first thing to do is load up a sequence of frames as a animation. You could load up an ANIM (animation) file or a GIF animation, or go to the Buffer menu and create a new (blank) buffer and give it a number of frames, but we'll create one here from a sequence of images instead.



Here's *ImageFX* with the bottomfire (nothing to do with curries) animation loaded. Note the VCR controls, bottom right

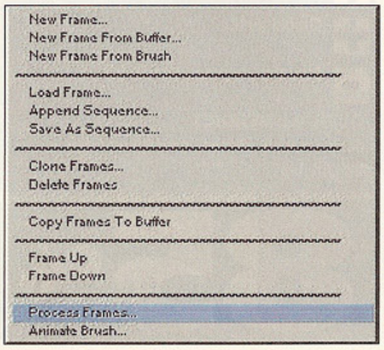
You can use alt-Open or go to the Layers Manager menu and select Load Sequence. The thumbnail file requester will come up (unless you've selected to load using the ASL requester) and you should now select any file from the sequence of images we're going to load. For the purposes of this tutorial we're going to use a sequence from the *ImageFX 4* CD-ROM. Go to the Goodies drawer on the CD-ROM, then into the Pyromania drawer, and finally into the Bottomfire drawer. Click on any of the filenames and then click Okay.

A requester will appear asking for a range of frames to load. The number of frames you can load depends entirely on how much RAM you have in your Amiga. If you've got at least 16MB of RAM, enter frames 1-20. Feel free to load more frames if you have the RAM to hold them. Once you've selected this, the frames will load and you will see the first frame displayed in your buffer window.

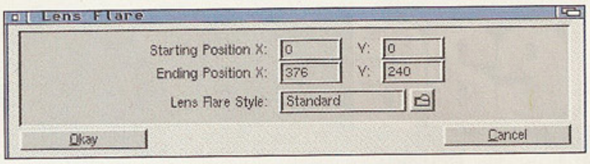
> "The first thing to do is to load up a sequence of frames as an animation. You could load up an ANIM or a GIF animation"

You can now try playing around a bit with the VCR controls in the Layer Manager window. If you haven't opened this window yet, click the icon of layers that is just in front of the RGB gadgets on the top of the ImageFX menu. The Layers Manager with the VCR-style gadgets will appear. These are fully documented in the manual, but while you're here enjoy playing the animation forwards and backwards. You'll also notice if you zoom in or out (do this when the animation isn't playing) that the size of the displayed image does affect the animation playback speed. The animations themselves are stored with full speed playback values.

If you like to create hand-drawn animations you'll be happy to see *ImageFX 4*'s light-table, or onion-skinning, feature as well. If you've had *ImageFX* prior to version 4 you'll know about the light-table that you could use

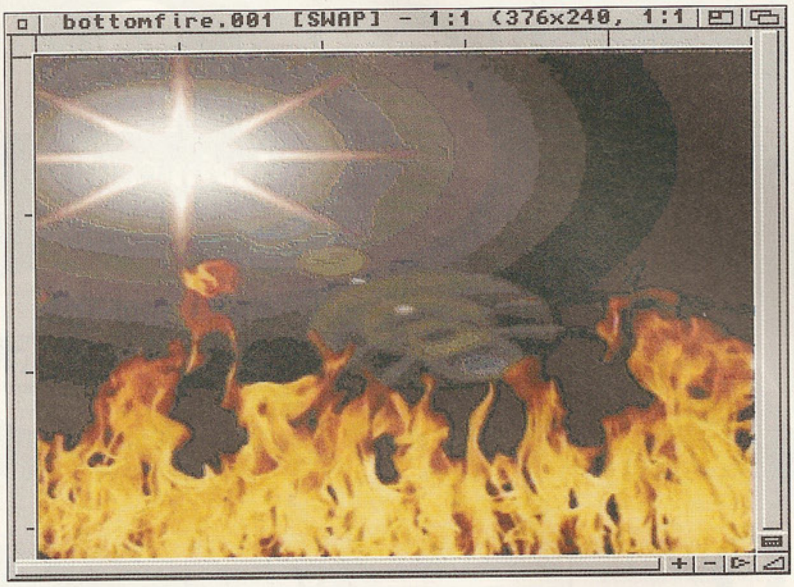


This is the Layers Manager menu whence you can process every frame in an animation



Here's where you put all your settings for your flare effect

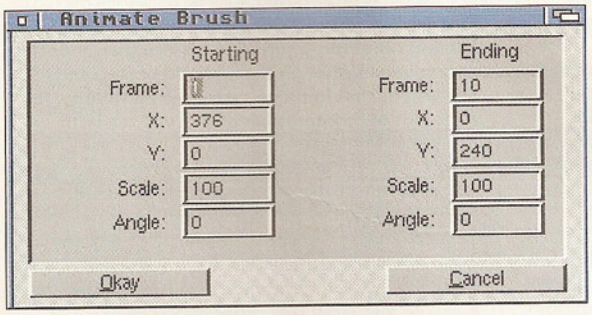
between the main and swap buffers. The light-table on offer for animations is even better. The command key is the same, just hit 'L' on the keyboard. When working with frames you'll see three levels of frames making it far easier to reference previous drawings. When working with GIFs, or other colour-mapped (CMAP) animations, you can still see through to the other frames. *ImageFX* can take full advantage of graphic cards to make this even more useful.



Oooh! Pretty! A lens flare in its full glory. Well, that is, it would be if it were animated.

ADDING EFFECTS

Let's add one of *ImageFX*'s effects to this animation. One thing to remember before you begin adding anything to an animation is that there is no Undo feature for animations. This is due to two things. First, you often won't have the memory for an Undo in your Amiga and reserving memory for it would cut the available memory in half at least. Second, processing an Undo for every frame of an animation would greatly increase the time it takes for any effect or animation to process. Speed is important to all of us, so we simply recommend that you save your animation before changing it in any way.



The Animate Brush menu where you input settings for the... actually, no, I'll let you guess

Go to the Layers Manager menu and select Process Effect from the menu. You will now see a file requester prompting you to select any one of hundreds of different Arexx scripts to process on your animation. These scripts are the same scripts used by *AutoFX*. You can also use *ImageFX*'s macro-recording to store your own scripts here for batch or animation processing. Any script beginning with EOT_ is for animation. The letters stand for Effect Over Time. Select the EOT_LensFlare.ifx script.

The menu for this EOT script will come up. By default it should be using the Standard style of Lens Flare. The only things you want to change are the starting and ending coordinates. Start at 0,0 and end at 376,240 – this will animate the Lens Flare moving from the upper left corner to the bottom right corner. Click Okay and watch it process. Depending on the speed of your machine and the number of frames this will take anywhere from a minute to many many minutes.

Once the processing is complete hit the Play button and see the fire animation with a Lens Flare appearing over it. Wasn't that easy?

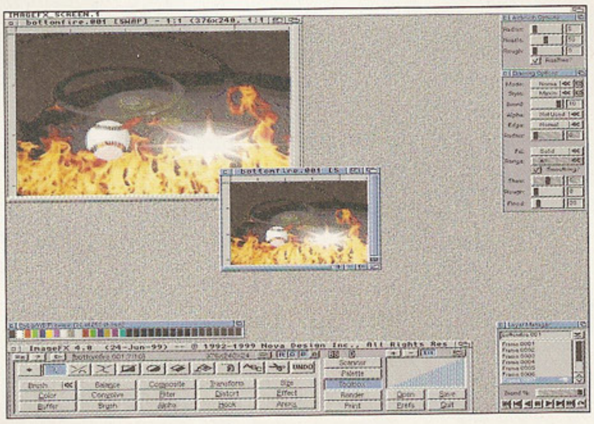
> "One thing to remember before you begin adding anything to an animation is that there is no Undo feature"

Let's try the Animate Brush option. To start this we'll load a brush from the directory of simple brushes provided with *ImageFX*. Go to the Brush menu and select Load Brush. Navigate to the ImageFX4:Brushes directory and select the Baseball.IFF brush.

Now go to the drawing options menu. You can bring this up by double clicking on the freehand dot draw icon on the Toolbox. Change the Draw Style to Maximum so only the bright white portion of the ball will be painted onto the image as we animate it.

Go to the Layers Manager menu and select Animate Brush. You will get the Animate Brush menu which allows you to control where the brush moves, whether it changes size during the move and if it rotates its angle during the move. The only thing we'll change here is the starting and ending coordinates like we did with the Lens Flare. To make the move more obvious we'll move from 376,0 to 0,240 so the ball will animate from the upper right corner to the lower left corner. Once you've entered these, just click Okay to proceed.

More than likely the brush will be animated on the frames so fast you won't notice it happening at first. Just hit the Play button and you will see that it did, indeed, animate the baseball across the image.



Funky animated baseball thing

THAT'S A WRAP!

That's a quick overview of the basics of animating in the new *ImageFX 4*. While it's quite similar to animating in *Deluxe Paint* (and therefore quite familiar to all Amigans) it's also quite a bit more powerful with the addition of *ImageFX*'s Arexx scripts and macro-recording.

Animations are enormously fun to play with and easy to do. You'll find that you'll be able to save animations in *ImageFX*'s INGF format (*ImageFX* Native Graphics Format) for storage during a work-in-progress, convert them to CMAPs and save them as ANIMs or GIFs as well. GIF animations are stored similarly to Amiga ANIMs, so if you wish to add additional GIF tricks, time delays, or other features to them you'd be advised to load the resulting animation into a GIF editor that supports these features. Your basic GIF animations will work just fine directly from *ImageFX* though.

If you have more questions now that I've completed this series of articles feel free to visit our web site or join our Internet mailing list where you can ask questions to all the *ImageFX* experts! Our web site is at http://www.novadesign.com and you will find information on joining the mailing list there.

Head-2-Head

Simon Goodwin compares Amiga versions of the former lingua franca of micros

Amiga Basics

Once one language dominated microcomputer programming: B.A.S.I.C, Beginner's All-purpose Symbolic Instruction Code, invented in 1965 by Kemeny and Kurtz at Dartmouth College. BASIC has come a long way since, but its history explains its strengths and weaknesses. Microsoft BASIC was spawned for the Altair in 1975, ported to CP/M, then built into the vast majority of early home computers, from Commodore, Tandy and Apple. Microsoft BASIC formed the core of MSX, and GW (Gee Whizz) BASIC was automatically translated into the original IBM PC ROMs.

Microsoft's original version of BASIC was a truncated clone of DEC's minicomputer BASIC+, with variable names limited to two characters, ropy arithmetic and few programming structures. Conditions were limited to single lines, leaving a spaghetti tangle of GOTOs to arbitrary line numbers, while GOSUB and one-line functions were the only way to re-use code. Direct memory access with PEEK and POKE was de rigueur.

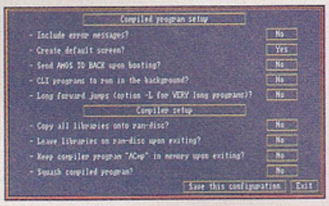
Variable types owed a lot to Fortran, with single and double precision decimals in four and eight bytes, 16 bit integers, arrays and short strings of up to 255 characters. Structured data types, like Pascal sets and records, C structs or unions, were unknown.

Kemeny and Kurtz were so upset at the Bowdlerisation of their brainchild that they championed an improved version, True BASIC, which was influential but did not stop the rot. True BASIC allowed long names and string slicing - akin to Sinclair BASIC, a rare rival to Microsoft's approach - plus named procedures and functions. It influenced the educational programming language Comal, and BBC Basic for Acorn and Z88 computers, though not enough.

When Microsoft were commissioned to write a new Amiga BASIC for Commodore - who'd recycled the ancient Pet version for the VIC 20 and C64 - they were working on QuickBASIC

Amos AMOS

Francois Lionet's Amos - Amiga Machine Operating System - is derived from STOS, a BASIC interpreter popularly used to write simple games on Atari STs, displacing a grim bundled BASIC developed by a placement student at Metacomco in Bristol. STOS played to the strengths of the ST hardware, replacing GEM's feeble desktop with its own front end.


Amos's simple binary compiler options

Amos is a world of its own, with friendly buttons but arbitrary limitations like static 'memory banks' which you must juggle to share resources between components. Amos has good manuals, some written by former PiMan Mel Croucher, and its interpretative design yields results promptly. Total sales in the hundreds of thousands prompted the publication of dedicated Amos books. Prolific PD examples include dev/Amos, a whole directory on Aminet.

The 'Easy Amos' version adds accessories and a fine tutorial, but omits the AMAL animation sub-language and cuts the command set in half, from 600 to about 300 keywords. You lose hardware sprites, but retain Blitter Objects. The baroque Amos Pro boasts over 800 commands, and a revamped interface with menus as well as buttons. It is more system-friendly, adding error trapping, double-precision maths, ARexx and access to Amiga devices and libraries, but predated AGA systems.



The compiler front-end, itself written in Amos

Speed is uninspiring, except by Microsoft standards, even with the optional compiler, making Amos more suited to puzzles than shoot-em-up games, though there are 3D extras, and PD extensions that improve system compatibility. An awful lot of programs have been written with Amos, and alas vice versa.

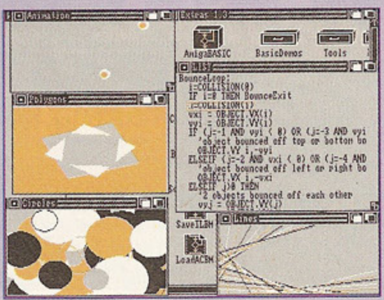
Amos supports sprites, Amiga screens and samples, but takes over the machine and still has the feel of an old Atari ST program. It crashes fast Amigas, so if you're looking to write programs for others, and for future systems, Amos is bad news. But it's fun if you're fiddling around on a slowish machine and want controlled access to much of the stock Amiga's potential.

AmigaBASIC

Microsoft's original AmigaBASIC was bundled with Kickstart 1 machines. It can be persuaded to run on a modern Amiga, but it's hardly worth the effort. It needs patches for 68000-specific MOVE SR instructions and is limited to 24 bit addressing, baffled by 32 bit RAM expansion beyond the eight megabyte Zorro 2 limit; on most AGA machines this leaves only slow chip memory for programs.

Microsoft's AmigaBASIC is slowly interpreted and superficial in support for Amiga features. You get windows and screens, but no palette or playfield effects. A graphics editor, written in BASIC, defines three-colour OCS sprites and simple blitter objects, which move under interrupt control with collision detection. Sound commands implement speech and queued samples or beeps for each channel. LIBRARY and BMAP extensions allow unchecked system calls.

The AmigaBASIC manual is dull but not bad, given its age. The only reason to learn AmigaBASIC now is in order to convert old programs from it. Microsoft was justifiably proud of it in 1985, but it does little for a modern Amiga.


AmigaBASIC: Microsoft never really understood multitasking

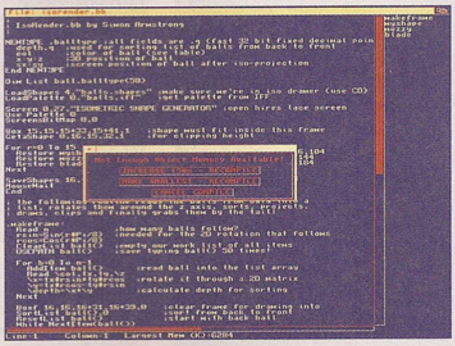
Blitz BASIC

The selling-point of Blitz BASIC is that it was used to write real commercial games, rather than the half-baked gamelets typical of Amos wannabes. Blitz BASIC 2 brought us *Skidmarks*, *Defender* and even a Spectrum 128 emulator. In each case the built-in assembler took some of the load, but there are some neat demos, like *Zombie Apocalypse* and *Project Buzzbar*, with source in the Public Domain.

Blitz includes an assembler, for plain 68000 rather than 68020 or later code, and a plethora of ready-made routines to perform Amiga-specific tricks. It's full of good ideas, like byte and fixed-point maths, but is incoherent, smacking of an enthusiast's long-term project rather than a commercial product. It was coded by Mark Sibly, but would probably have sunk without trace without support and demos from Simon Armstrong of Acid Software.

Blitz attempts to coexist with Amigas from OCS and Kickstart 1.3 to AGA, and manages fairly well, though the debugger may cause more trouble than it finds, and TED, the integrated editor, is rudimentary. Program source is tokenised, with keywords encoded as binary and displayed in contrasting colours.

TED is modal and takes some getting used to if you're familiar with applications that conform to the Amiga Style Guide. Rather than the conventional copy, cut and paste, you mark a block by highlighting it with the mouse and remove it with Amiga K, or copy to the cursor position with Amiga C. You must insert, join and delete lines with menus or Amiga I, J and D, rather than by pressing Enter to split a line, or rubout at the start.



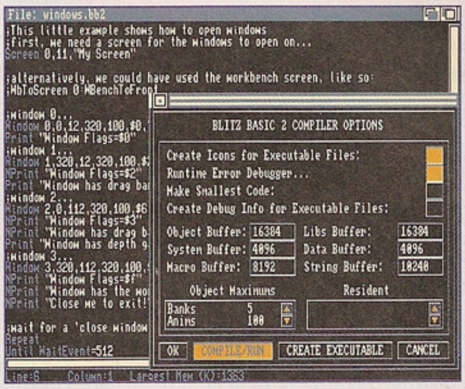
The eccentric Blitz editor in Productivity mode

Blitz has copious but chaotic documentation, consisting of two books and megabytes of examples. The A4 reference manual discusses commands and functions by topic, in arbitrary order, with a contents page and four page Command Index.

The first half of the A5 User Guide comprises ten tutorial chapters, followed by appendices and reprints from the defunct 'Blitz User Magazine', with brief examples of over 100 late extras, but no index. You're better off looking through the examples, which are plentiful though erratic in quality. You'll need Commodore's include files, and preferably a set of ROM Kernel manuals, to fathom out the interface between Blitz and AmigaOS.

Blitz is more like C than BASIC, so you gain easy access to hardware and system structures, but lose the parameter-checking and hand-holding of a high-level language. For every correct Blitz program there are dozens of superficially similar ones that misbehave or crash.

It's buggy and does not seem to have been tested with memory management, firing Enforcer hits like magic bullets through the Amiga's soft underbelly. You can write fast, reliable code with Blitz, but it takes trial and error.



Blitz compiler options displayed on an old A500

for Macs and PCs. This added long names, multi-line IF clauses and named SUBroutines with parameters, shared and local variables. Structured programming was possible, though structured data took longer to arrive. The Amiga and Mac environment inspired MOUSE, MENU and TIMER extensions.

> ***Eight versions of BASIC for the Amiga are discussed here & this month's AFCD is stuffed with BASIC goodies.***

Eight versions of BASIC for the Amiga are discussed in the following boxes. Most support a common core of MBASIC commands with various Amiga extras, and can be tried for free. Errol's stuffed this month's AFCD with BASIC goodies.

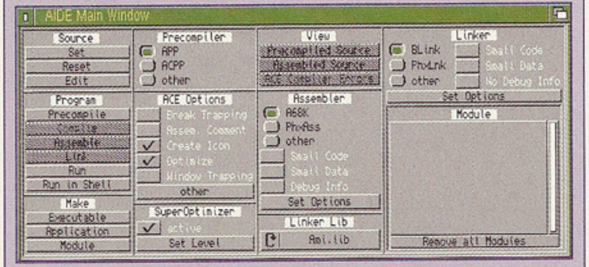
Continued overleaf ➡

ACE BASIC

ACE BASIC is freeware. From shaky beginnings David Benn has built a stable compiler that is well-suited for converting programs from older dialects of BASIC, but short of Amiga specifics.

ACE BASIC started out as a command-line compiler for AmigaBASIC programs, later adding support for turtle graphics, system gadgets, structures, pointers and requesters. David and keen users have developed utilities and examples for speech recognition, GUI building, communications and simple graphics.

You use a separate editor, rather than a fully integrated system, to build programs. The package comprises the compiler, documentation and examples, plus your own editor, assembler and linker plucked from the PD, optionally lashed together with GadTools. ACE works, but is more suited to applications and experimentation than games programming.



ACE offers a complicated front end for shell-phobics

HiSoft BASIC

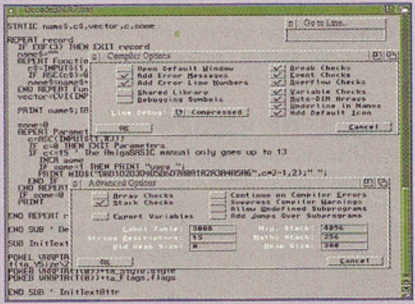
The strength of HiSoft BASIC, known as Maxon BASIC in Germany, is its conformity to standards. It has a long heritage, derived from HiSoft's ST BASIC, later bundled by Atari, itself adapted from my QL compiler Supercharge. En route it acquired most of the syntax and keywords of AmigaBASIC and Microsoft's PC QuickBASIC 3.

Programs are saved as plain text, so a tokenisation phase is needed to sift out keywords before compilation proper can start. Like Blitz and Amos, HiSoft's editor capitalises keywords on each newly entered line, making simple typos obvious.

AmigaBASIC sprite and sound commands are implemented, but anything more requires the official 'system-friendly' approach. HiSoft has taken pains to convert almost all the examples in the Commodore ROM Kernel Manuals into HiSoft BASIC; much of the support on Aminet consists of third-party include files.

This demonstrates that it's possible to call any system routine from BASIC, but the resultant code may be ugly, full of arcane PEEKs and POKEs, for want of structured data types. HiSoft have chosen to provide stubs to call the system, rather than extend the language with a host of Amos or Blitz-style special commands.

The editor is fast and comprehensive, the manual is great, and the compiler supports big programs and enormous strings. But there's no source level debugger, and misdirected POKEs in system calls can easily cause crashes which the parser is powerless to prevent. HiSoft BASIC limitations stem from the poor correspondence between standard BASIC and the data types used by the AmigaOS, and the chimera of BASIC compatibility.



HiSoft BASIC 2 is professional but looks dull

OVERVIEW

Contrary to prejudice, BASIC is still usable, although a halfway house, unsuited to large projects. BASIC's strengths are simple syntax, a fast development cycle - especially with interpreters, making it easy to find and fix bugs - and flexible text handling without the perils of unfettered pointers in other languages.

BASIC sits rather uneasily atop AmigaOS, though compiled programs have good compatibility with Kickstart 1. PD extensions fix some of the problems with AMOS and Blitz, and there are plans to rebuild those compilers for modern Amigas; meanwhile they're shaky, with crashes common when we try to run 'reader game' submissions on our expanded Amigas.

> Contrary to prejudice BASIC is still usable, although a halfway house, unsuited to large projects.

Blitz and Amos are well supported in the PD, and packed with neat extras, but these detract from compatibility. The plethora of dialects makes all but the most vanilla code hard to port, and compiled BASIC is not especially fast or concise. BASIC still has its place, but lags behind ARexx or Perl for quick hacks and communication between applications, Pascal, Modula or Oberon for reliability, and C or assembler for performance.

Quick comparisons

LANGUAGE	ORIGIN	BEST POINT	WORST POINT
ACE BASIC	Australia	Free	Short of Amiga extras
AmigaBASIC	USA	Once bundled	Hates modern Amigas
Amos BASIC	France	Well-integrated	A world of its own
Blitz BASIC	New Zealand	Good ideas	Flaky implementation
Bywater BASIC	USA	PowerUp native	No Amiga extensions
Cursor compiler	Germany	Editor front-end	AmigaBASIC subset
GFA BASIC	Germany	Not Microsoft	Microsoft-inspired
HiSoft BASIC	United Kingdom	Dependable	Poor data structuring

PREFERENCES

COMPATIBILITY
1 HiSoft BASIC
2 ACE BASIC
3 AmigaBASIC
4 Blitz BASIC
5 Amos

EXTENSIONS
1 Blitz BASIC
2 Amos
3 HiSoft BASIC
4 ACE BASIC
5 AmigaBASIC

PERFORMANCE
1 Blitz BASIC
2 HiSoft BASIC
3 ACE BASIC
4 Amos
5 AmigaBASIC

Prime test results

BASIC	TIME(S)	BYTES
ACE debug	38.9	39376
ACE fast	1.36	33816
Amos 1.35 int	8.5	770
Amos compiler	3.5	57004
Blitz debug	2.85	6712
Blitz fast	0.79	4304
Cursor 1.7	3.3	32788
HiSoft debug	6.5	21736
HiSoft fast	1.07	20732

Our comparison uses a rudimentary program from Aminet to find prime numbers (indivisible integers) up to 3000 on a Cyberstorm Mark 1. Like all benchmarks, it's arbitrary, but this one does something vaguely meaningful, timing the language core when exercising integer loops, tests and the MOD operator. The programs are on AFCD44.

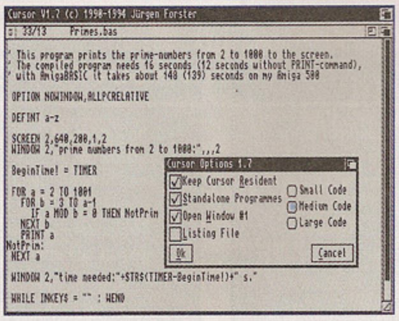
It was not easy to find even a simple program to compile under all five systems. Amos insisted on a GOTO after THEN, Blitz lacks the internal TIMER, and both disdained AmigaBASIC window commands. ACE and Blitz locked up till the jump out of the inner loop was recoded to fiddle with the index instead.

The Amos times compare the interpreter and compiler; ACE, Blitz and HiSoft BASIC 2 results contrast test code against flat-out optimisation, shedding run-time checks and debug data. This makes a big difference to speed.

The rest

CURSOR COMPILER

The 20 DM shareware Cursor Compiler is designed to compile and run most AmigaBASIC programs from its Spartan editor. It lacks support for sound, reference parameters and random access files. Cursor is simple but works quite well.



The Cursor Compiler's conventional interface

GFA BASIC

Like Amos, GFA BASIC was ported from the Atari ST. It offers about 300 commands, many of them Amiga-specific. It offered greater speed than Microsoft's offering, boosted further by an optional compiler, but it has poor compatibility with expanded Amigas and was blown away by Amos and later HiSoft BASIC. There's little reason to use it now, but you may find useful GFA programs in the Public Domain.

PPC BWBASIC

Bywater BASIC dates from 1992 and its ANSI C source was recently ported to PowerUp Amigas. It is a seventies-style interpreter, reminiscent of Microsoft's ancient MBASIC, with fixed-length record filing and no Amiga enhancements. It's free, and runs natively on PPCs, but otherwise primitive.

EMULATOR BASICS

Classic BASIC interpreters are commonplace in emulators. Code translation slows most down, but gives good compatibility with old sources. Speculator97's BetaBASIC is an eloquent language for quick hacks. Qdos4Amiga runs natively in 68K code, offering Sinclair's powerful, extensible SuperBASIC. But only real Amiga compilers offer efficient graphics and sound.

WEB CONTACTS

ACE Home Page: http://www.adelaide.net.au/~dbenn/
ACE file archive: ftp://ftp.vision.net.au/pub/ACE/
Amos support: http://users.cybercity.dk/~ccc21504/Amos/front.html
Amos programs: http://199.72.15.96/web/Amos/Amos_download.html
Amos source: http://www.clickteam.com/ftp/Amos/Amos.htm
Amos file archive: ftp://mushypd.dynip.com/pub/amiga/Amos
Blitz support:: http://freespace.virgin.net/jason.hayman/BlitzResource/
Blitz programs: http://www.thenet.co.uk/~awingrove/blitz/index.html
HiSoft BASIC: http://www.hisoft.co.uk/amiga/basic

MAILING LISTS

Amiga ACE: http://www.onelist.com/subscribe.cgi/Amiga_ACE
Amos BASIC: http://www.onelist.com/subscribe.cgi/Amos-list
Blitz BASIC: blitz-list-request@netsoc.ucd.ie
HiSoft BASIC programs: http://www.cadenza.cyberstrider.org/archive.htm



Workbench

Simon Goodwin takes over the role of *AF*'s Agony Uncle. Email: amformat@futurenet.co.uk, putting Workbench in the subject line, or write to: **Workbench • Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW.**

AFCD44:-In_the_Mag-/Workbench ON THIS MONTH'S CD

CABLE MODEMS

I have an un-towered A1200 with an 030/40 processor with 16 meg of fast RAM, a 3.2gig hard drive and a 56k modem amongst other peripherals. I have just read in a net magazine that the cable company NTL are soon to be launching a cable internet sevice in Northern Ireland. Now this ties in neatly with a message I received from the same company who also do my cable TV and Telephone network. I was told that they would be hopefully starting a new type of internet service in August.

I read in the article though that to connect to this new service I would require a cable modem. Now I believe that to connect this to my Amiga I will need an Ethernet card. Is it possible to connect an Ethernet card to an un-towered Amiga or will I require a tower so I can have Zorro slots at my disposal? I'm hoping that it can be connected to my clock port in some way.

At the same time, I use the excellent Net Connect II and I was wondering how many changes I would need to make to configure this software to work with the cable network. Keep up the excellent work in your great mag.

Ewan J Carmichael
email

Yes you can fit an Ethernet card in an un-towered Amiga 1200, via the PCMCIA port. This month's AFCD contains all the software you'll need to use this with NetConnect 2, in the InTheMag/Workbench directory.

The only thing to bear in mind is that some PCMCIA adapters do not conform to standards, and require special software. Such a PC or Mac version bundled will not be any use to you, so check the list of compatible cards on the CD before you splash out.

Cable Internet connections are a new thing, so read on for advice from another reader who's had first hard experience of their requirements. Bear in mind that your cable company could be doing something weird, but as long as they expect a standard Ethernet connection, the Amiga can provide that just as capably as any PC, Mac or Unix box

LAYING A CABLE

I write concerning John Kennedy's response to the letter of Thomas Braby in AF 126, who asked about cable modems. As I worked for a company that introduced ADSL in Switzerland and I was the guy technically responsible for it I assume to be able to loose a few words.

First, cable modems and ADSL are two completely different techniques. Cable modems are using the broadband network of Cable Television providers; I think you call this CATV or something similar. The cable modem signal is transported by the same cable infrastructure as the television signals. If you use cable modems somebody will connect the modem to your cable TV connector in your home and then you can connect your computer, normally through Ethernet, to the modem. The cable modem works as a bridge, transforming your Ethernet frames to a frame format suitable to the cable network.

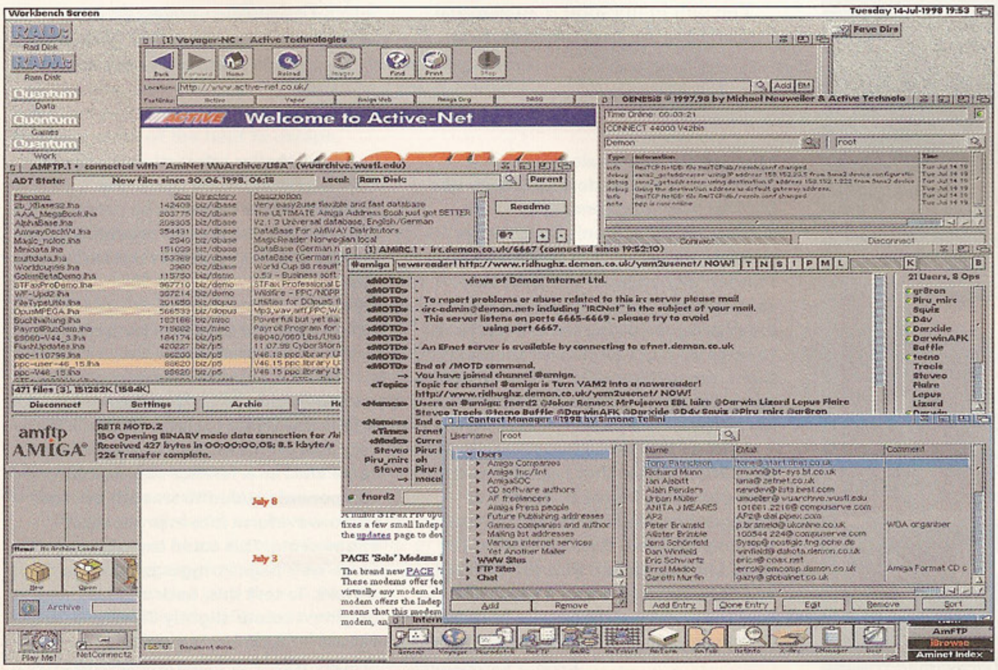
The cable network provider then gives you high speed access (several Mbps) to the Internet. The bandwidth on the cable network is shared between the users, unlike in ADSL.

ADSL has the same goal but here you get a modem that connects to the telephone line in your house. You have a technical maximal bandwidth of 6 Mbps (from the net to your PC) and 600 kbps in the other direction. Of course the real speed depends on what the provider is willing to sell and configure.

Your are quite right, the protocol on the telephone line is ADSL. There are special PC cards which directly delivers an ADSL signal and is directly connected to your phone plug. But there are also ADSL modems which connect to your phone plug and offer Ethernet or ATM-25 interfaces to connect your PC (also bridge). These kind of ADSL modems would allow to connect an Amiga through Ethernet.

Yvan Gutknecht
Zurich

Thanks for that clarification, Yvan. We welcome information from readers who have tried Cable Internet – we're still waiting for BT to offer humble ISDN connections here in Bath!



Whether to connect to the Internet using cable, ISDN or standard phone lines is a choice that more and more people are being given.

AUDIO MIXUP

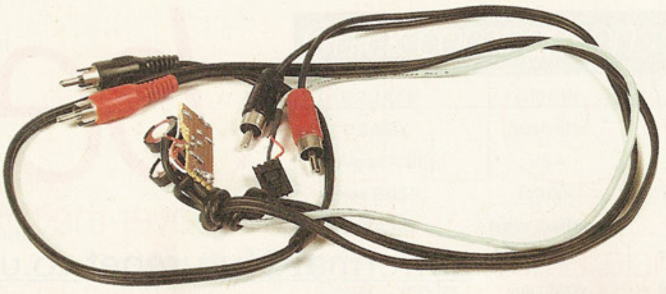
About Simon's article on Amiga audio (Amiga Format 126). His article is very complex and, to be honest there is an easier way of mixing both CD and Amiga sound outputs. I've got the sound of both the CD ROM and the Amiga linked to an external PC speaker system which just has an on/off switch and volume control, this also linked to

Continued overleaf ➡

the 486 soundcard which is linked to the Amiga through ami-pc. There are no little solder boards or amplifiers, just a simple switch for Amiga/PC sound, and it works fine. Playing *Quake* I can listen to a CD using PlayCD from IDEfix.

All you do is buy connectors for each output (Amiga, CD ROM, headphone out) cut the PC speakers wires and you should find 4 wires (usually red, earth, white, earth) and connect them together, i.e, red to red etc. And away you go! In *Quake* you can control background volume (CD) and so mix the two sound outputs together. One problem though... the PC's sound will override the Amiga's even if the switch is set to Amiga.

David Leacy
Eire



Excercise caution when you jigger around with sound cables. You could end up having to spend money on getting your hardware fixed.

The problem with doing this is that you might damage the output of the CD player or the Amiga. It works for a while, then the reverse voltage from one output to another harms the de-coupling capacitors, which are not designed to be driven the other way round. First the sound is slightly distorted, then it fades out or is reduced to a crackle, and you've got expensive soldering to do in the drive or more likely on the Amiga board to repair matters.

This is not just theory - it happens and can be avoided, if you follow the simple instructions in the magazine. The little solder board (or screw connector strip) and associated components protect the Amiga and the CD drive. If you miss them out, you may get away with it for a while, but you should expect problems later

PRESSURE

With regard to your article in AF 122 'If it Doesn't Work, Thump It' about Mr O'Brien and his 8x speed external CD-ROM that was making 'strange humming noises', I too had a similar CD-ROM that after a few months' use, started to make the same noises and boot problems that would only stop with a sharp tap to the unit.

The unit in question is an external 8x speed via a Squirrel interface from Power Computing. After a while I decided to throw caution (and the guarantee) to the wind and open up my CD-ROM. After first unplugging the device from the mains, I removed the outer case and checked the connections and all appeared to be OK.

Then I noticed that the actual drive that is mounted in the case with the power supply was held in place with a large sprung strap across the top of the drive. Deciding that this was putting too much pressure on the drive, I removed it and tried the CD-ROM. It worked, so I took some of the tension from the strap by bending it in the opposite direction slightly and refitted it. It has worked OK ever since. I hope this will help Mr O'Brien and other users with similar problems.

Mr P Bass
Grantham

You were lucky not to make things worse! I would only try this if the product was out of warranty and I could see no other way of fixing it

HARD HEADED

Recently my hard drive died, so I have replaced it with a 6.5 Gb one. At the moment I have only formatted it to 4Gb. Is there a reliable and safe way to use the full 6.5Gb or would I have to buy some extra hardware? I'm using IDE fix, does IDE fix97 offer a patch?

My system is a 40MHz 68040 with 32MB Fast RAM and a x4 CD-ROM, all in a tower. Also, I have 2 pins missing from my Citizen ABC printer. Can I get a new print head, and if so, where from?

Dave Stone
Bridgewater

There are two simple ways to bypass the 4 Gb limit, if IDE fix won't do the job for you, though Toni at Power reckons the latest version handles big drives OK. The cheapest

KALEIDOSCOPIC PROBLEMS

I too get the same kaleidoscope of animated lines and dots as Craig Sears (AF126) gets sometimes when I am surfing the web. It only happens on certain web pages that I go to, and then I find It only occurs if I happen to be connected to the IRC or maybe in an email program at the same time. I have to re-boot to get anywhere and I think that I may get knocked offline anyway when the video effects first start to perform.

What I find when I do re-boot and get back online is that I can access the web page that I want to as long as Voyager (the web browser that I use) is the only program that is in use at the time. I hasten to add that this problem has only occurred about 4 times and that the same web page was responsible on 2 of those occasions.

Ewan J Carmichael
email

I've seen similar interactions between YAM and Samplitude Opus. The common factor seems to be running MUI at the same time as other resource-hungry programs, and it does not appear to affect graphics-card screens. Try reading the same pages with AWeb, which does not use MUI - I suspect the problem will disappear.

There is a known problem on AGA systems trying to use maximum brightness white (palette setting 255, 255, 255) which interacts badly with some EMC interference-supression components added to smooth out the video waveform late in production engineering. This could explain why some web pages trigger breakup of the picture. To test this, back off the brightest colour slightly (254, 254, 254 should be fine) in your palette preferences, and experiment with different browser screen modes.

Feedback

In response to an e-mail in issue 126 from Bridge Deady , subject "*Simon The Sorceror*". I have the same problem with the CD version, while playing the game, when you click on something it plays all the sounds at once, and often it freezes. I unfortunately don't own an accelerator board, and at first I thought my CD ROM may have been too fast for the game, as I have a 32x Max, but I don't think the speed should matter

Rebecca Mason
email

With regard to the letter titled "Sorcery Problems" in your August Workbench pages, I also had difficulty getting the sound samples in *Simon the Sorceror* to play correctly on my A1200, which has a 40Mhz 68040, an eight-speed IDE CD drive, and uses IDEFix97 and CacheCDFS.

I eventually found that the problem was the cacheing being done by the CD filesystem. The solution was to create a special DOS driver with no buffers. To run the game I wrote a script which used the KillDev program (part of the IDEFix distribution) to disable the normal CD0: device, mounted the new unbuffered CD0:, then ran the IDEFix CD32 emulator to simulate booting from a twin-speed drive. The game worked perfectly. The IDEFix CD32 emulator doesn't seem to accept any arguments, but it reads its icon tooltypes even when started from the CLI, so I had to make a separate renamed copy, and configure it that way.

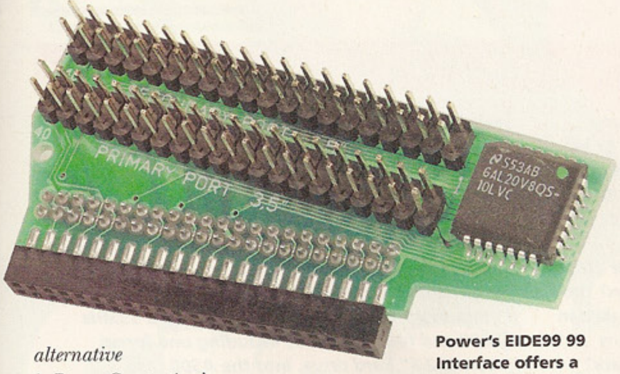
I don't know if this information will be of any use to people using SCSI drives and Squirrels, but I hope it helps IDE users.

Peter Baker
email

Thanks Peter - this just goes to show that fastest is not always best, especially where compatibility is concerned. Back when Simon The Sorcerer was mastered, a double speed drive was state of the art, and the programmers can hardly be blamed for not testing it on eight or 32x speed drives.



***Simon The Sorceror* seems to be giving many of you problems. Thanks to Peter Baker, there might be a solution here for you.**



Power's EIDE99 99 Interface offers a cheap solution to people who have hard drives over 4 Gb. At only £29.95 it comes with all the software you need.

alternative is Power Computing's EIDE99 interface, which includes software to split your drive into three or four 'logical drives' all under 2 Gb in size, which can be formatted and fixed exactly as normal. You pay £29.95, and get Allegro CDFS, control signal buffers and expansion for a couple more drives thrown in.

The software alternative is Workbench 3.5, priced at £34.95, plus the cost of Kickstart 3.1 if you have older ROMs. This includes a new HDToolbox and device code for bigger drives. The snag is that old disk maintenance software like ReOrg, AmiBack and DiskSalv might not recognise the larger partitions until that software is upgraded to Workbench 3.5 standards. Again, you get a lot more than just support for 4 Gb partitions.

If you're determined to avoid extra expense, look at Format64 on Aminet, with scsi.device v43.23 and FastFileSystem 43.12 or later; beta versions were available on http://www.amiga.de, along with NSDpatch, which updates older devices to 64 bit addressing, but this is unguaranteed test code and Workbench 3.5 is a simpler and safer bet.

JPEGS TO DPAINT

Is there any program on the market that will convert JPEG images to the IFF format (and other file formats), so that I can use the images with DPaint V?

I hope I have given you enough information to help me with my problems. Many thanks for an informative magazine, and I hope you never leave us, as I have gleaned loads of information and tips from you. I am now a subscriber and hope to keep my subscription going for many years to come and I really hope other Amiga owners follow my example to keep the mag going.

John Robinson
Hartlepool

There are dozens of programs to do this. Most professional image manipulation software supports JPEG conversion, including AdPro, ImageFX, Photogenics and PPaint. Aminet has GfxLab24, ImageStudio, ImageEngineer and the SuperView.library which supports dozens of format conversion, including JPEG.

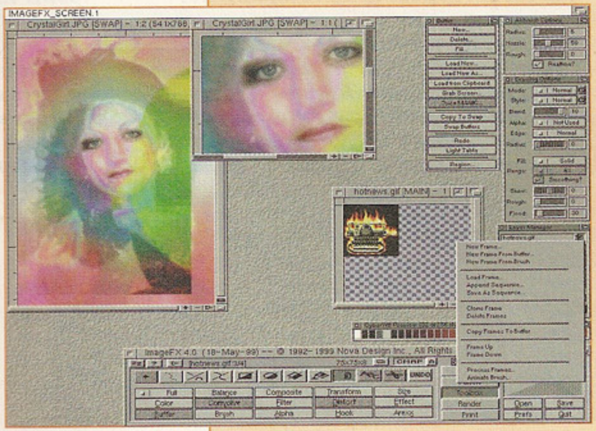
Datatypes allow system-friendly programs like Multiview to decode JPEGs as if they were IFF ILBM files, but currently without support for HAM modes. Sadly DPaint V does not support datatypes without patches, so you're advised to perform the conversion outside DPaint.

Visage and Viewtek appear on AF CDs every month, and can read JPEGs. Once you've got a picture on the screen, you can save it to disk with QuickGrab or SGrab, at a the press of a key.

If you know how to type shell commands, Viewtek can do the whole job for you. It's on our CD every month, in the system/tools/graphics/Viewtek drawer. Copy the VT command file to your C: directory, then (for a file called Stan) type:

```
VT STAN.JPEG SAVE STAN.ILBM
```

This reads Stan.JPEG, decodes and displays it, and saves it in Amiga format. You can add command arguments to force a particular screen mode or resolution.



ImageFX is just one of many packages that supports JPEG conversion.

THERMAL TRIP

I have a problem with my A1200. After using it for about an hour it will start to crash and the only way to reboot it is to switch the computer off for a short time (about 10 minutes) and then it will reboot successfully again.

I am told that the cause may be that the computer is overheating and that turning it off allows it to cool down. If you think this is the cause of the crash, is there any advice you can give me as to how I can overcome the problem? I have removed the cover from the underside of the computer to allow some of the heat to escape.

PF Longley
Stanmore

That does sound like an overheating problem either in the computer or power supply. If you can borrow another PSU - ideally an A500 one - I'd try that and see if the trouble goes away. Otherwise, power down and unplug everything you can easily remove that takes power – PCMCIA peripherals, trapdoor expansion, external floppies – and try again.

If the computer remains stable, the problem is the excessive load on the PSU. A1200 units vary in capacity; at worst they're barely enough for a 2 Mb machine with internal floppy and no other drives, yet some people get away with an accelerator and internal and external drives before the pips start to squeak.

The power demands of drives and other expansions vary enormously, so it helps if you tell me details of everything you've got plugged in. You might find changing to modern drives, which do not load the A1200's feeble 12 volt line, cures the problem. An A500 supply is far more generous. If the minimal system still fails after an hour or so, you've got a serious problem on your motherboard, and need to send it off for repair or replacement.

The print head for your ABC is available for £39.95 plus VAT from CPC (021772) 654455. The order code is CZBA09701-0. Unless you're really in love with the printer, I suggest saving the money towards a non-impact printer. A Canon or Deskjet will cost under £100 and give far better results, with no pins to break again!

EAGLE GROUNDED

I have a Eagle Tower with a A4000 motherboard, which I purchased on the 15 August 1996 from Blittersoft. This has served me well but recently I added another SCSI drive requiring removal of a metal cradle which houses the DF0: floppy drive. To remove this cradle the floppy drive has to be unplugged, and I believe I have damaged the small board at the back of the drive which contains one chip and three jumpers. Now I cannot read from DF0:, and info and file requesters hang if I do not remove PC0: from DEVS/DosDrivers. Is a damaged floppy drive likely? If so what can I do to get it working again?

Andy Thomson
High Wycombe

The most likely explanation is a loose connection at one or other end of the floppy cable. Check that it is fully plugged in at both ends, and check the power supply connection on the back of the drive.

The PC-: DOSdriver problem suggests that CrossDOS can see the drive, but its a unable to communicate with it. Either the connection or drive are at fault. If your drive has an adapter board, check the connection between this and the mechanism.

The six pins on the back of the floppy drive encode the drive number. For a Commodore DF0:, the last two at the bottom, furthest from the 34 way IDC cable, should be bridged by a jumper. To select DF1, bridge the first two (leftmost and middle pin) in the bottom row of the grid. It's possible that you've lost or moved this jumper. Other makes of drive vary arbitrarily - genuine Commodore drives favour Chinon mechanisms, type FB-354 for 880K formats and FB-357A for dual-speed DD/HD 880/1760K floppies.

If all else fails, you'll have to replace the drive. Options include FDD-ITL1200, a replacement 880K mechanism, £25 from Eyetech, or a combination of Kylwalda boot adapter and a PC drive, which will support standard Amiga floppies at once and HD and higher capacities through CatWeasel. Unfortunately stocks of Commodore drives modified to format 1760K through Paula are exhausted.

PROTEL POSER

I recently bought a ProTel Teletext Receiver box from First Computers. The package did not come with a Parallel cable as advertised, so I bought one from

Continued overleaf ➡

a PC shop. The nearest one I found to the one I needed was a 25-pin male-to-male. I bought a gender-changer to connect the cable to the Teletext unit.

The idea with the system is to plug a video signal into a socket in the Teletext box, run the software and click to start downloading Teletext information plucked from the signal. A green LED is supposed to pop on to signify downloading. When activated, though, the darn thing refuses to do anything, save pop up a 'downloading...' window. I have tried a variety of TV/Video/Aerial setups to provide the signal, with no success. The 50p/min helpline provided with the invoice doesn't cover Amiga problems (so ta very much, then).

Colin Davis
Swindon

First Computers got these boxes as a job lot from Gordon Harwood, who notoriously dropped the Amiga, which explains their unhelpful 'helpline'. It's not clear from your letter whether you bought a ProTel without a cable, or paid the extra for one. If the latter, contact First with your order details and they'll make up the deficiency. I spoke to Graham Sharp at First Computers, who was very helpful; in general, the supplier should be your first port of call if you have problems.

Otherwise, it's rather unlikely that your 'off the shelf' cable and adapter will fit the bill. It sounds like an RS232 serial cable, which is unlikely to have all 25 pins connected, and may have some wires swapped so each end of a link can talk and listen on distinct lines.

You need a lead connecting all 25 pins on the D type plug to the corresponding holes in the socket. A ProGrab cable or fully-wired parallel switch box lead should work fine, which is why First offer a cheaper deal for those who already have something suitable.

The green light comes on when the box is receiving a sufficiently strong signal. Check this with a TV - if the aerial does not give a good picture, without ghosting or interference, it's unlikely to be good enough for Teletext, which performs very little error-correction or checking.

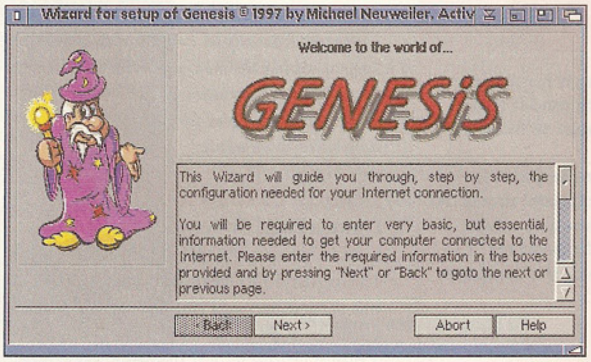
The other thing you can check is the power supply setting. The red light indicates power, but not necessarily the right voltage. If you've got a meter, check that the supply is delivering ten or more volts, off load.

SHARING IP

Having now become fully established Amiga surfers, the only problem my wife and I have is who gets to use the computer. Although we have a 10 meg 030 A1200 running Genesis, we also have a bog standard unexpanded floppy-only A1200, which we use for sequencing. Is it possible to link both our Amigas, so that we can share the same telephone and Internet connection? We only need the unexpanded A1200 to be able to cope with AmIRC, as my wife is a total IRC addict. Please help...it could save our marriage!!

Mertle and TinyFlea
email

Yes. You need PLIP or MagPLIP, on last month's AFCD, and a suitable cable to link the parallel ports of both machines. Use these to connect the two machines with TCP/IP - Genesis is designed to work this way. Then both computers can be on the net at once. I gave more information about this last month.



You want to use Genesis on two computers sharing the same phone line? No problem.

OH, BROTHER

I have a Brother EP22 electronic typewriter which has a memory store for ASCII text and a serial 25 pin connector in order to use an external printer. I also have the NComm software but cannot get the text to transfer from the EP22 to the Amiga 1200. What am I doing wrong?

A Sheldon
Nottingham

Well, you're not giving me much information, for a start! Serial communications only work if all the options are just right - in particular, the cable and serial port settings have far more 'dud' configurations than working ones. You don't say if you've been able to print to the EP22 with your cable, for example.

If the EP22 expects to connect to a printer, rather than a computer, the receive and transmit signals will need to be swapped over, or the Amiga and Brother will both try to talk at once down the same lines, and both listen to other ones, and never hear one another.

Check if your Brother is configured as DTE (master) or DCE (slave). Use a straight-through cable it it's wired as DCE (dumb Data Communication Equipment); otherwise swap connections to pins 2 and 3 (Receive and transmit) and 5 and 20 (DTR and CTS, Data Terminal Ready and Clear To Send) so each output is connected to a corresponding input.

After that, you need to set the correct data transfer rate. This is a menu option in NCOMM, but probably preset for the EP22 - most likely rates are 1200 or 9600 baud, but your manual should tell you the right value AF

A500 REVIVAL

I recently caught sight of your magazine in my local newsagent, I picked it up and just had to buy it. This prompted me to pull out my old Amiga 500 out of the loft (its confinement since late 1991). I realised how far behind it is. I therefore have a few questions:

Can I upgrade it to something like WB2 or WB3 and does this involve changing any ROM chips? The hard drive it uses is a sort of cartridge which slots in the side. Where can I get one and are there any alternatives? How much will all this set me back?

I know I may seem crazy wanting to upgrade my A500, but I don't want a super computer, I just want it to be more useable and not just a games console.

Glyn Astill
Nottingham

Yes, you can upgrade to Workbench 3.1. This involves fitting one 16 bit ROM chip, which will set you back £20. The system disks and four manuals will cost an extra £16, or £20 if bought separately. You might consider upgarding to the latest OS 3.5, which requires the 3.1 ROM, but won't get all the benefit on such an old ECS Amiga.

You might also consider getting a ROM switcher for backwards compatibility with some of your old software. This lets you swap back to the old Kickstart when programs demand it, without opening the Amiga case.

Commodore, Supra and AlfaData used to make had drive and RAM expansion for the port on the side of the A500, but those ceased production long ago. The only new expansion for 500s is Power Computing's Viper 520, which squeezes a 33MHz 68020 and four IDE ports, including one for an internal 2.5" hard drive, into the A500 case.

At £100 with 8Mb RAM, Kickstart 3.0 ROMs and disks it's good value, but that's about as far as you can take an A500, and still weaker than an A1200 with budget acceleration, internal IDE and AGA graphics. In your place, I'd think hard about buying an A1200 with Kickstart 3,1, keeping the A500 power supply and external drive, and putting the basic A500 back in the loft.

The sad thing is that the A500 is still a pretty cool computer, though graphically limited by modern standards; you need to find someone who needs a superior 'games console', which is why I opted to palm off my stripped-down 500, with the basic 1200 power supply, to my six year old niece!

IF YOU HAVE A QUERY

We welcome your queries, but make sure you submit them correctly:

- **Send email to amformat@futurenet.co.uk with the subject "Workbench".**
- **Send letters to the usual *AF* address (it's on page 94 if you need it), and make sure you put "Workbench" on the envelope.**
- **Include details about your machine, such as what processor and how much RAM it has.**
- **Do your best to describe your problem succinctly.**
- **Make sure it wouldn't be easier to contact the dealer you bought the item from and ask them.**
- **Be concise!**



Creative

The indispensable guide to getting the most out of your Amiga

SEND IT IN!

WE NEED YOUR INPUT

Is there something you would like to be able to do with your Amiga but you don't know how? Perhaps you have an idea for a tutorial on a subject that you haven't seen *Amiga Format* cover before. If you can answer yes to either of these questions, why not write in and tell us?

PROGRAMMING

Loads of Amiga users like to create their own software. Do you need some help in this area? Perhaps there's a language that's giving you grief or maybe you want to know how to exploit some feature of the Amiga's Operating System. Let us know.

GRAPHICS

We all know the Amiga is a great tool for creating graphics, but how do you go about it? Is there a particular package you'd like some tips on? Get in touch at the following address:

AF Creative • 30 Monmouth Street • Bath • Somerset • BA1 2BW.
Email: richard.drummond@futurenet.co.uk
Remember to put "Creative" in the subject line.

It's been a busy month. We've suffered all the furore over Amiga's decision to adopt the Linux kernel for the NG operating system and then we've had the fun and the all-night drinking sessions at the World of Amiga show. And yet, somehow, we've managed to find the time to create the space for four new tutorial pages.

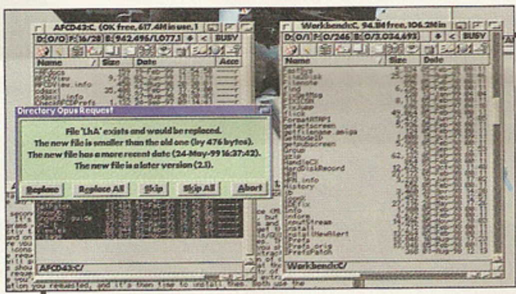
We've decided to put these new pages to good use (not that our other pages are not also put to good use, that is). While our other tutorial series are well-liked by the majority of readers, we felt that we were perhaps not doing enough for the more inexperienced readers of *Amiga Format*. To correct this oversight, we've launched a new series of one-off tutorials, a series of Complete Beginners Guides to... whatever.

Ben starts the ball rolling this issue by telling you everything you need to know to get the most from our cover CDs. Many of you seem to have problems with the CD, so this seemed the ideal place to start.

Remember to send in ideas for any subjects you would like to see get the Complete Beginners Guide treatment.



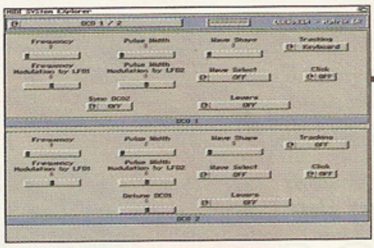
Richard Drummond



NEW Tutorial



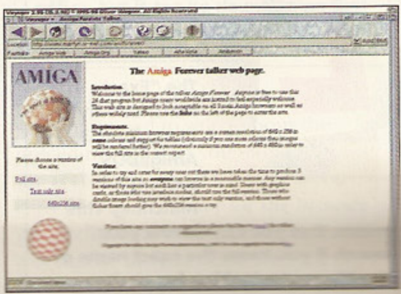
Ben walks you through the *AFCD*



Tony looks at MIDI patch sequencers



Dual playfields: what are they, how are they useful, and how do you go about setting them up?



Find out how to soup up your browser with some plug-ins.

The complete beginners guide to... the AFCD

NEW Tutorial

Ben Vost introduces the first in an occasional series of complete beginners' tutorials, first up: our CD...

There are quite often topics for which we get asked for tutorials that wouldn't suit our normal six-month, two-page format, so we've decided to do an occasional series of one-off, four-page guides to topics that may not deserve or require further explanation. The first in this series will be the AFCD since some of you have trouble with various facets of it, but please give us ideas for further tutorials of this sort.

> **TOP TIP**
> To make sure you don't waste time searching CDs you don't have in AFCDFind, set the CD filter to exclude ones you don't have (it's in the menus for AFCDFind) and save your settings.

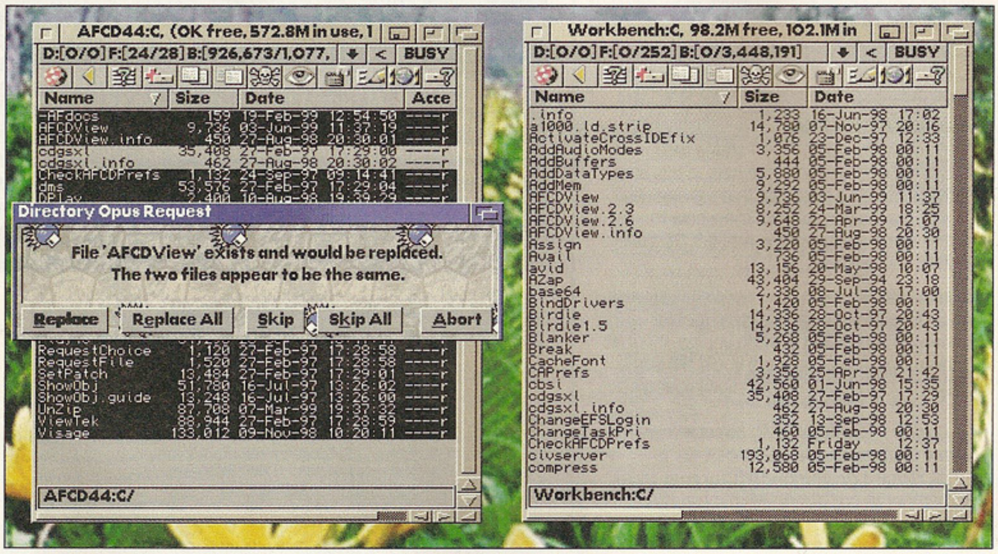
We like to think our CD is one of the best organised on the planet, but there will always be room for improvement and it does change from issue to issue, so it can sometimes be a little confusing – especially for people new to it, or those that were only used to our old way of doing things. The first thing to bear in mind is the tools and programs you'll probably need to have on your hard drive before you can even start to get the most out of our disc.

The first and most obvious thing to do would be to actually copy the entire contents of our c drawer into yours. There aren't that many files

> "We like to think our CD is one of the best organised on the planet, but there will always be room for improvement"

GET YOUR WORK ON OUR DISC

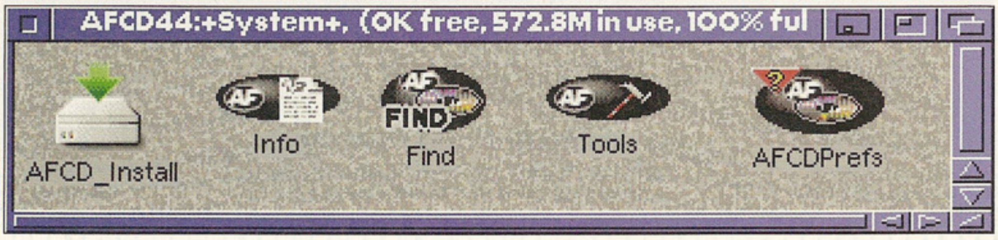
We still get submissions we can't put on our CD. If yours is one of them - you sent it in ages ago (more than four months) and it still hasn't appeared on the CD - read the submissions advice guide which is part of the HTML in Start_Here. Did you do all the things it asks you to do? If not, bingo!, that's the reason your work isn't on the CD.



Having a file manager makes it easy to see if you already have the latest files on your machine.



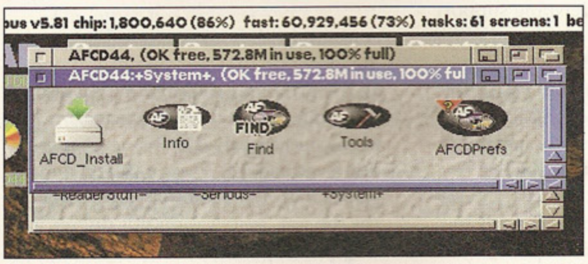
The essential tools to make sure your machine is AFCD-ready can be found in this drawer.



> **TOP TIP**
> Don't forget that both AFCDFind and AFCDPrefs have online help. Just put your mouse over the thing you are uncertain about and hit the help key.

> **TOP TIP**
> The "Exact matches only" menu item uses AmigaDOS pattern matching. This means that you can narrow your search if you know the exact name of the file you're looking for, or use pattern matching (#?) to replace characters you're unsure of.





Having the same fonts as us ensures your drawers and other icons line up.

TOP TIP

The "-"s and "+"s in the drawer names help make sure that they appear first in a file requester or file manager.

contained within it, and they are all the latest versions, but without having programs like *LhA*, *Installer* and *AFCDView* on your machine, we probably won't get very far. Use a file manager to copy these programs across, or simply open a Shell window and type "copy AFCDXX:c/#? c:" where AFCDXX should be replaced with the name and number of the CD you are using. Now, we're ready to move onto the next step. Bear in mind that if your hard drive is "mature" you may well already have all these tools in your c: directory, but for those that have just installed Workbench on their machines, this step is essential since you won't have any of the necessary programs yet.

The second thing to do would be to install Magic User Interface (MUI) and ClassAct. It's possible that you won't end

TOP TIP

Don't forget that the +System+/Tools drawer contains a large number of handy utilities that we've picked to make life easier. They are always kept up-to-date.

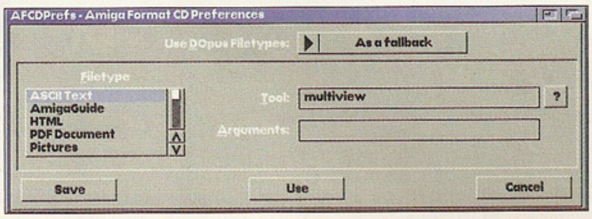
TOP TIP

If you don't know what a program you're looking for is called, try using a likely part of the name - if it's an AHI sound package, put "AHI" in the search field, or switch to "Exact matches only" and put "#?ahi#?" in the search field.

up using either of them, but a lot of the programs on the CD use one or other of these interface systems and they don't exactly take up a lot of room on your hard drive. The way to get them off the CD and onto your machine would be to go into the +System+/Tools/GUI drawer where you'll see some cardboard box icons and some readme files. The cardboard box icons are all archives and when you double click on one, you should get a file requester appearing which asks you where you'd like to extract the files – it will suggest your

TOP TIP

Pictures sent to the Gallery don't need to have a file extension on them. It would be better for them to have a nice name instead of "Pic0137.iff". If you don't want to do that, at least give them a title in your readme.



AFCDPrefs is very easy to set up.

RAM: disk. If you have a memory expansion of some kind this should be enough, but if not, click the "Volume" button at the bottom of the requester and choose a hard drive partition that has plenty of room on it. Once you've done this, the files for MUI and ClassAct will be extracted to the location you requested, and it's then time to install them. Both use the standard Commodore *Installer* program which we copied to your c: directory in our first step. If you still can't run *Installer*, go back and make sure that Installer is actually in your c: directory. Once MUI and ClassAct are installed, they both suggest you reboot your machine and will do it for you, so watch out if you extracted the programs to RAM: since that gets emptied every time you reboot.

Okay, once you've installed MUI and ClassAct you're almost ready to get the most from our CD (I know it seems longwinded but it's quite possible you already have these programs installed, so you won't need to worry about the preceding steps). If you want to browse the HTML on our CD, I suggest you copy the whole drawer for the browser you prefer onto your hard drive, and if you choose *iBrowse*, make sure you copy the MCC into your MUI drawer (see the

What's it mean?

PATTERN MATCHING

Pattern matching is a powerful tool to allow you to select more than one file by using characters that get replaced. It's hard to explain in such a small area, and the AmigaDOS manual you should have received with your machine actually does contain a pretty decent explanation of it.

FAQS

FAQs are internet documents that have entered common usage. The acronym FAQ (pronounced "Fack") actually stands for Frequently Asked Questions, and a FAQ is a list of just such, together with their answers.

MCC FILES

MUI has a system of libraries, much like your Amiga, but kept in the MUI drawer. MCC actually stands for "MUI Custom Class" and .mcc files are often accompanied by .mcp files which are the preference editors for the custom class – the thing that is responsible for a new line of options appearing in your MUI preferences program.

GUI

An acronym standing for Graphical User Interface (and pronounced "gooey") which is used for Workbench's windows, AFCDFind's controls and pretty much any program's visual front end. MUI and ClassAct both offer alternative GUI's to Workbench's own, with more features and extensibility.

ARCHIVE

An archive is a single file that is a compressed version of many disparate files. Compressing files this way makes them more transportable (and usually smaller than the separate files would be). Common archive names are LhA, LZX, ZIP, TGZ and DMS.

FILE MANAGER

A program that gives you a graphical representation of the files on your computer meaning that you only need to use a mouse instead of arcane Shell commands in order to copy, rename, delete or move files. Many file managers can do lots more than this and Directory Opus Magellan II is the one we use in the office, but it can be daunting on first exposure to it.

Continued overleaf ➡

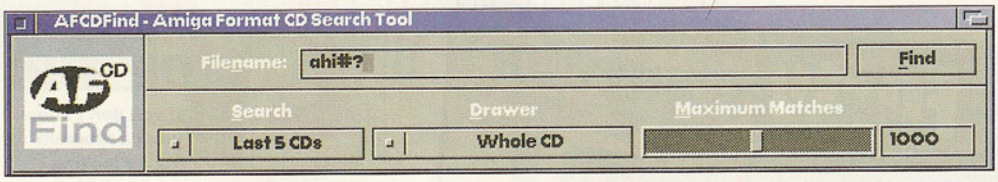
What's it mean? boxout). This will make browsing the HTML faster, and will also mean that you don't get requesters saying that the CD is write-protected (the reason these requesters appear is that browsers tend to have a cache to make browsing faster, and the cache defaults to being in the browser drawer, which, being on the CD, can't be written to). If you do that, AFCDPrefs needs to be told which browser you'd prefer to use, and where it will be, so fire up *AFCDPrefs*, select the HTML entry in the list on the left, then click on the question mark button over on the right-hand side, next to the top text field. This button will bring up a file requester. Go through it to find where you put your browser on your hard drive. Select the program (*iBrowse*'s program is called *iBrowse*, *AWeb*'s is called *AWeb* and *Voyager*'s, just for variety, is called *V*). Save your settings and let's carry on.

The steps you've gone through to this point should ensure that even if you had a bare machine with a freshly installed Workbench you shouldn't get any problems with our CD, but if you don't like the choices of the default file viewers we've made for you, then *AFCDPrefs* is the next place to go. As in the HTML example above, call up *AFCDPrefs*, choose the item from the list on the left that you want to change, and then use the question mark button on the right to set the options the way you want them. This is probably the most powerful aspect of our CDs: the fact that CD-ROM is a read-only medium but you can choose the settings you want is a great one, and I cringe when I look back at all the old CDs that were hardcoded to use particular file viewers to look at the files on the disc. We had to pick the lowest common denominators so that everyone would be able to use them, but some of the choices were far from perfect for people that had well-specced machines, so this method really is a boon.

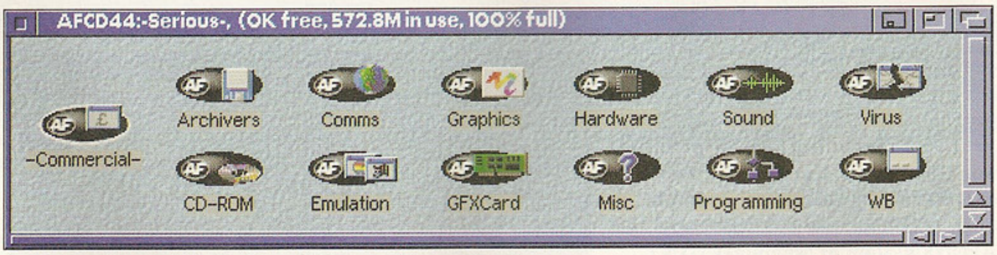
AFCDPrefs also forms a nice complement for users that have installed *Directory Opus*, allowing that program's extensive filetyping support to take care of things. The list of filetypes now included in *AFCDPrefs* is pretty extensive and should cover the vast majority of filetypes you'll come across in everyday Amiga usage, but if you can think of a filetype that we've overlooked, please do tell us!

You are now completely ready to rock and roll, but it would probably be a good idea to know what's on the CD and where things are at. Right now, the CD is divided at its root into six visible drawers and a single icon – the big AF logo with Start_Here! written under it. Ignoring that for the time being, let's turn our attention to the drawers. I said visible drawers, because, just as with Workbench, there are ones that don't have icons, including the c drawer we copied stuff from earlier. However, there aren't many of them, and the main six hold almost everything of interest on the CD (there is a websites drawer which doesn't have an icon, but since you don't need direct access to it it doesn't need one). Each of the six main drawers is further subdivided, with the subdivisions remaining pretty constant in all but two cases. The -ReaderStuff- drawer contains not only all the programs you send in, but also the -Gallery- section of the magazine with your artwork, the -ReaderGames- drawer which will contain the reader games that were reviewed in the issue (by the way, on occasion this drawer is empty. This isn't a mistake, it just means that either there weren't any reader games reviewed that issue, or that they got to the CD too late to go on and would be included on the following AFCD) and lastly the -WB_Screens- drawer. This contains snapshots of readers' Workbench screens and should always include a list of the tools used and an explanation of how the screen looks the way it does.

The -Serious- and -ScreenPlay- drawers contain a selection of Aminet downloads sorted into convenient categories, together with items from websites, things that get sent to us by companies for inclusion on the CD (like demos of games or serious products) and more. The -Coverdisks- drawer contains the contents of the



Switching to exact keyword matching means that you can use AmigaDOS pattern matching to find those files.



The Serious drawer – like the Screenplay drawer is organised in an easy-to-use fashion since it contains a lot.

TOP TIP

If you get a message saying "cannot create CL_String" when you start an HTML page and you're using the default HTML viewer iBrowse it just means that you need to copy a needed library file to the correct place. Simply copy the "newstring.mcc" file from the iBrowse drawer on the CD to your MUI:Libs/MUI drawer.

TOP TIP

Using our default programs on the CD as file viewers is never as fast as using ones on your own hard drive.

-S AND +S

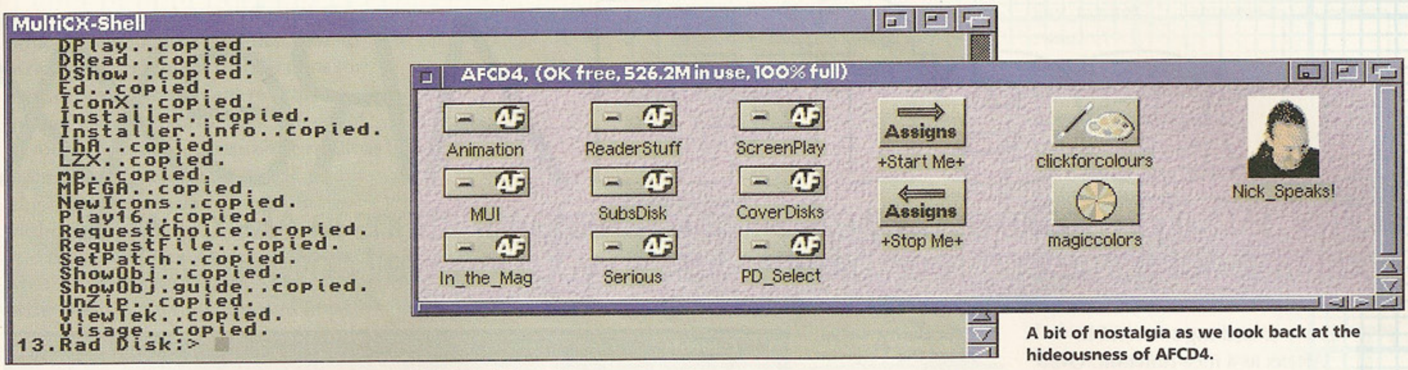
Some people have asked why some of our drawers have "-" or "+" at either end of the name. These won't affect you if you solely use Workbench to move through our CD, but you may be getting irritated with them if you concentrate on using the Shell. The reason for them is to make sure that important directories "float to the top" in file requesters and file manager listers so they don't get lost in a mass of drawer names. It doesn't affect people who use Workbench, it benefits those who use file managers and if you're having problems with it in the Shell, install Kingcon - it's on our CD (in the System/tools/WB drawer). This gives you filename completion, which means that you just need to type the first few characters of a filename, hit tab and KingCon will fill out the rest of the file or drawer name. You don't even have to type any of the name if you don't want to, just hitting tab will be enough for KingCon to bring up a file requester that you can choose the name you want from. If this was KingCon's only ability it would still be worthwhile, but since it also incorporates a proper scrollback history, drag and drop functionality and the ability to jump between screens it's invaluable.

TOP TIP

If we have PowerPC programs on our CD we try to ensure that the drawer icon has some kind of visual indication on it. Right now, this only works with NewIcons.

TOP TIP

When you get a new AFCD, run AFCD_Install in the +System+ drawer. It will make sure that if you are out of date with any of the CD's important files they will be installed on your machine.



A bit of nostalgia as we look back at the hideousness of AFCD4.

If you don't have a file manager, you can always use the Shell.

floppy disks we covermount, in both extracted and, for your convenience, archived DMS form to allow people who only have access to our CD through a PC the chance to at least copy the DMS files onto floppies which can then be tranferred to an Amiga.

The other two drawers – -In_the_Mag- and +System+ have contents that do vary from month to month, although they both have regulars. If you've asked for a specific file to be put on one of our CDs, it's a good possibility that it will be found in the ReaderRequests drawer in -In_the_Mag-, while *AFCDPrefs* and *AFCDFind* are firmly ensconced in the +System+ drawer.

Last but absolutely, positively, definitely not least is the *AF* icon Start_Here!. Double clicking on this will fire up the browser of your choosing and bring you to the HTML portion of the AFCD. This part of the CD will continue to be an important part of the disc, so ensuring that your browser is working properly is essential to proper enjoyment of our four-weekly disc o' fun. In addition to Rich and I editorialising, all the guidelines for making sure that your work gets on our CD can be found here, along with an expanding series of FAQs about various topics, the transcripts of our mailing list afb, a selection of websites and more.

TOP TIP

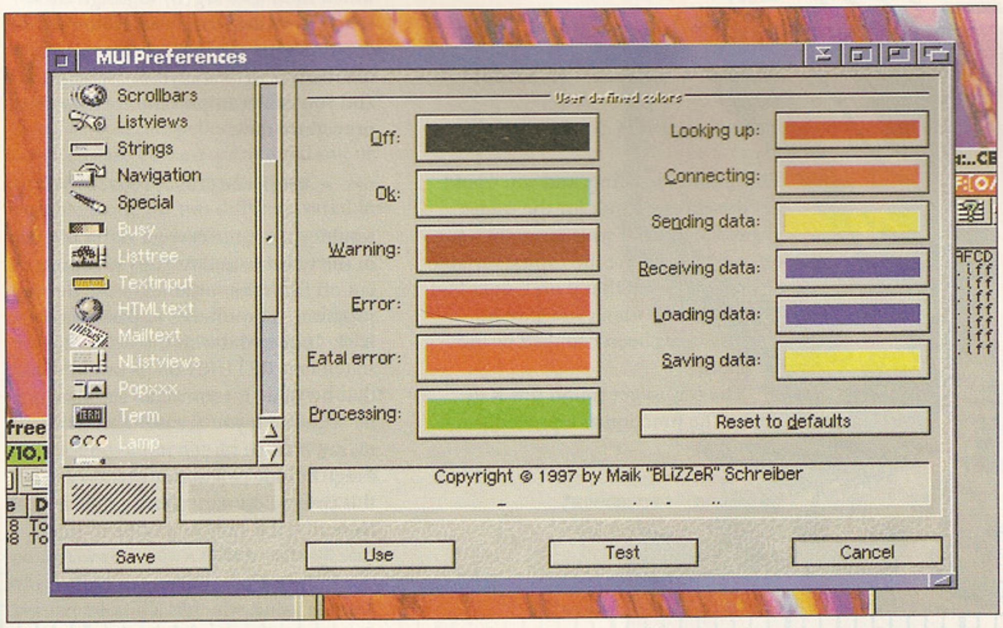
If you want to be a big help to us when you send stuff in, make sure the default tool for any non-program file you send has "AFCDView" as its default tool.

TOP TIP

If the icons always need resnapshotting on your machine, it's probably worth your while using the same fonts as we do. FuturaB/12 is for Screen text and XHelvetica/11 is for icons. They can both be found in the CD fonts drawer.

So you want to try a program from our CD but you find you can't make it work. What next? The best thing you can do is try to find out why exactly this hypothetical program isn't working on your machine. One of the best ways we provide for doing that is to use *SnoopDOS* which you'll find in the +System+/Tools/Expert drawer. Don't be afraid of it being in that drawer – it's very easy to use. You may get confused by the sheer amount of data it seems to output, wondering how you're ever going to find out what's going wrong, but if you are being overwhelmed, click on the "Functions" button in the main window and click on the first tick box that's labelled "Only show fails". This will dramatically reduce the amount of info you have to wade through and will more than likely show up the cause for the problem. Usually this process will tell you that you're missing a library, font or something similar. If it's a library you're lacking, you can go to the *LibsGuide* program that's also in the +System+/Tools/Expert drawer and run the AmigaGuide in there which lists several hundred libraries and where to get them from. If your Workbench has been running for years it may be that you have libraries which never get used these days but you're afraid to chuck them out just in case you've a program that'll want them as soon as you do. *LibsGuide* (and its sister products *DevsGuide* and *DTypeGuide*) has a tool that can examine all the libraries on your machine and tell you what they're used for, whether you're using the latest version and where to get a newer one if you aren't. Well worth a go.

Hopefully this little guide should help you get the most from our CD. Since this is the first tutorial of its kind in *AF*, please give us some feedback on it. Was it too difficult still, or too easy? Was there anything else you think we should have talked about? Did the explanations go into too much detail, or not enough?



Magic User Interface (MUI) is an essential part of any modern Amiga – especially one on the net.

TOP TIP

File managers are incredibly useful things to have, and not just for the experts. A program like Directory Opus Magellan is absolutely fantastic, but might be too complex for you if all you wish to do is have a Shell-free and easy way of moving files around on your system. Our CD has DM2, but there are others, and they'll make your life so much easier.

Useful ARexx

Nick Veitch looks at how easy it is to create functions in ARexx, while pointing out some common pitfalls. Just so you don't fall down any pits.

For clarity, we've added the ¶ sign in the listings to show where you need to enter a Return.

Contents:

If you've missed any tutorials in this series, call our back issue hotline on 01458 271102.

There is nothing so useful in ARexx as a nice function. Over the last few months we have seen quite a lot of the functions that ARexx has to offer, but now we are going to create some of our own. Creating a function in ARexx is really quite straightforward. It is simply another bit of program code with a label attached to it.

Imagine for a moment, we wanted to work out the percentage of one variable compared to another. It would be pretty simple, I suppose, to write a single line of code to do it. Something like:

```
percent =(x/y)*100¶
```

And it would probably be easy enough to use that code. It isn't complicated or confusing, or even very long. But supposing instead, you wanted to work out what some flat rate investment would be worth in x years time with compound interest at i%? Hmm, it's going to be a bit tricky to do that in one line isn't it? Well, actually no, and here's the answer:

> We have seen quite a lot of the functions that ARexx has to offer, but now we're going to create some of our own

```
networth = compound(capital, x, i
)¶
```

Well, there you go. Simple. Now, since Arexx doesn't actually have a function called 'compound', we'll just have to define it. It would probably look something like this:

```
compound:¶
DO loop = 1 to y¶
capital = capital *(1+i/100)¶
END¶
RETURN capital¶
```

And there you are. This still isn't horribly complex, but think how messy your program is going to get if you have to do ten such calculations. And that is what functions are for. They make no difference to the result of the program, they simply make your program neater, easier to understand and easier to write.

GLOBAL POWER

In the previous example, experienced programmers may have noticed something odd. The function we defined didn't actually read in any values from anywhere, it seemed to already know what the values capital, i and y stood for. And that's indeed what it did, because a standard function in Arexx uses global variables. This can be tricky, as well as useful. Imagine the example function in part of a small program:

```
Arexx compound interest
calculator¶
capital = 1000¶
i = 7.5¶
y = 5¶
net = compound(capital)¶
say net¶
exit¶
compound:¶
DO loop = 1 to y¶
capital = capital *(1+i/100)¶
END¶
RETURN capital¶
```

This would work fine, and you would get the correct result for the values given. However, if your program went on and tried to use the capital variable again, you'd find that it no longer had the value 1000 which you gave it, because it has been changed by the function.

The way to get round this is to define the function as a procedure instead:

```
compound: PROCEDURE¶
capital = arg(1)¶
years = arg(2)¶
interest = arg(3)¶
DO loop = 1 to years¶
capital = capital
*(1+interest/100)¶
END¶
RETURN capital¶
```

In this case, none of the variables in the main program are altered in any way by what goes on in the loop. That means that the function (or Procedure now) has to get all the values it needs to work when it is called, otherwise it won't be able to calculate anything. It gets these values by using the argument function we have seen before. In the above example, we would call the procsdure by saying:

```
net = compound(capital, years,
interest)¶
```

The three variables, capital, years and interest are passed to the function, which then uses arg(n) to assign these values to its own variables. Note that you don't have to call the variables in the main program anything specific, and you can even pass numbers to this procedure now:

```
net = compound(1000,10,9.8)¶
```

would still get the correct result placed in the variable net. As the procedure is cut off from the variables in the main program, it now needs to pass a value back. It does this with the RETURN statement. RETURN on its own means that no value is returned – this may not be required if you are using functions to, say, change screen modes, open files, assign colour palettes or whatever. In this case we do want a value returned. Note that it is only one value in this case.

In fact, a procedure can only return a single value, which is a bit of a pain. Say you had a procedure to convert

polar to rectangular co-ordinates (for which, incidentally, you'd first have to write some trigonometry functions for ARexx!), you would want to return a pair of x and y co-ordinates. You could, if you were cunning, return the result as a single string, and then PARSE it into the components you wanted, but it's rather ugly to do this, and procedures are supposed to help you out and make your programs neater. You could always write it as a plain function, and hope that none of the variables are used elsewhere. ARexx has a much better solution though, and it's called EXPOSE:

```
x = 3¶
y = 4¶
height = 10¶
Width = 45¶
call SCALE(6)¶
SAY ` new width` width¶
SAY `new height` height¶
SAY `co-ordinates` x y¶
SCALE: PROCEDURE EXPOSE width
height¶
x = arg(1)¶
width = width * x¶
height = height * x¶
return¶
```

In this example, we have a box at 3,4 of dimensions 45x10, and we want to make it six times bigger. When the procedure is called, the EXPOSE statement tells ARexx that the variable names which follow are to be treated as global variables for the purposes of this function. Any other variables we choose to use inside the procedure are still local. In this case, the fact that we have used x inside the procedure doesn't alter its value in the main program at all.

CROSSED VARIABLES

The trick with exposed variables is not to go mad. If you are writing a long and complex program, it is very easy to forget what you have called all your variables (which is another good reason for assigning them all at the start of the program) and screw everything up. Syntax errors, mispelled filenames or functions are easy errors to weed out of an Arexx script – using the same variable name for two different variables will just screw up anything you wanted to get out of the program, and could take many weeks of painstaking searching before you find the problem. So, only expose the variables you really need to.

Another useful aspect of functions is that they call other functions. Earlier I mentioned a function to convert polar co-ordinates into x and y values. Here is how such a procedure might be written

```
polartorect: PROCEDURE EXPOSE X
Y¶
length = arg(1)¶
angle = arg(2)¶
y = length * SINE(angle)¶
x = length * COSINE (angle)¶
return¶
SINE: PROCEDURE¶
angle = arg(1)¶
....¶
....¶
return sin¶
COSINE: PROCEDURE¶
angle = arg(1)¶
...¶
...¶
return cos¶
```

> If you come up with any exciting procedures, please send them to me. I may even give out a prize for the best.

As you can see, the first procedure calls two other procedures. I haven't detailed the other two procedures, as frankly, they'd be rather long and not particularly interesting. But the principle they demonstrate is useful. You could have created an all in one procedure to do everything for you, and it probably wouldn't have been any bigger than defining all three. But the beauty of splitting them up is that you can use the trig procedures for other things as well now. And it makes it easier to see what everything does.

RECURSIVE FUNCTIONS

Don't be afraid of calling procedures from within procedures. In fact, here is one last example, whose cunningness relies on it being able to call another procedure – in this case itself!

```
Arexx recursive programming in
action!¶
Say `Enter a value`¶
Pull number¶
result = factorial(number)¶
Say number ` factorial is:`
result¶
EXIT¶
factorial: PROCEDURE¶
number = arg(1)¶
result =1¶
IF number >1 THEN DO¶
result = number*factorial(number-
1)¶
END¶
RETURN result¶
```

It doesn't look very big, but it is clever. This is what's known as a recursive function, because it calls itself, and it is very handy for problems involving self-similarity. What it does is calculate the factorial of a number (very handy for probability problems). The factorial is expressed in mathematics as !, and n! Is equal to n n-1 n-2 n-3 ... 1. For example 6! = 6 5 4 3 2 * 1 = 720, which incidentally is the number of possible results you would get if you recorded a coin being tossed six times.

If you were to calculate it another way, I suppose you could use a loop, but this way is far cleverer, and illustrates how useful ARexx's procedures are.

What happens is that the function is called with a number. If the number is greater than one, it works out that the result of n! Is equal to n * (n-1)!, so it calls itself for the value of (n-1)!. This carries on until it gets to 1, because the result of 1! Is equal to 1. Only at this point is a value returned, and then it can be passed back through all the iterations until the right answer pops out at the end.

If you come up with any excitingly clever procedures, please send them to me care of *Amiga Format.* I may even give out a prize for the best one.

Be sure to join us next issue when we'll be undertaking our first project – a script that will automatically generate thumbnails of a whole drawer full of pictures.



Program Perfection

For the perfect program, Richard Drummond says, may the source be with you.

There comes a point in every programming project when you have to stop thinking and get down to writing some code. We haven't quite reached that point yet, but before we do it's a good idea to discuss some issues about source code. Spending some thought on how to perform the style, layout and structuring of your code can make your life so much easier later on.

Writing source code in many ways is like writing prose. It is written once and read many times. In both cases, the logic of your arguments should be easily apparent to the reader. While some programmers will delight in trying to bamboozle the reader with the intricacy of their code in an attempt to prove their talent, this is really not helpful to anyone.

A QUESTION OF STYLE

Most popular programming languages are free format: this means that the amount of whitespace in between the lexical elements of a program is unimportant. You have the freedom to lay out the source code in any way you wish. Don't let this freedom go to your head, though. You can use it to emphasize the logical structure of your program. In block-structured languages such as C, indentation in a powerful tool.

You should develop a style and use it consistently. Programmers always have their own personal peculiarities about laying out code and will tell you that their way is right, but as long as there's a reason for whatever style you choose and your system works for you, then fine. An editor which performs syntax highlighting and automatic indentation is a particularly useful tool when writing code, particularly if you can adapt it to your own style. Not only will this enforce your style more rigorously, but it is helpful in picking up typing mistakes.

As an example, compare listing one with listing two and decide for yourself which is easier to follow.

For clarity, we've added the ¶ sign in the listings to show where you need to enter a Return.

Contents:

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> Writing source code is in many ways like writing prose. It is written once and read many times.

Listing 1

```
#include <stdio.h>

int square(int x)
{
 return x*x;
}


int main(int argc,char **argv)
{
 int count;

 for(count=0;count<11;count++)
 printf("%d x %d = %d\n",count,count,square(count));
}
```

DOCUMENTATION

Amateur programmers tend to have a casual attitude to documenting their code. But documentation is crucial to readability. As an aside, there's a saying which goes: Documentation is like sex. When it's good, it's really good, and when it's bad, it's better than nothing.

There are two types of documentation: commenting and self-documentation. By self-documentation, I mean choosing identifiers for functions names, variables, types, etc. that are themselves informative.

Comments allows us to insert notes into our code which remind us what the purpose of the code is, to point out non-obvious algorithmic steps, or to explain oddities. We should practice restraint in our commenting, though. There's no point in just echoing the source code itself. For example:

```
i++; /* increment i */¶
```

is not very useful.

```
i++; /* increment loop counter
*/¶
```

is much better. In fact, with a more informative choice of variable name, you could do without the comment at all.

Each source file should have a comment at the top which describes the function of that file and lists the author, the creation date and perhaps any revisions made to that file. Each function should be documented stating the purpose of that function and describing all the parameters, any result returned, and any assumptions made by the function. Commenting is also handy for flagging the end of loop. In C the end of a loop body is marked only by the end of statement or program block. Indentation is the only guide to which loop is being closed. Things can be clarified by a comment stating which loop a closing brace belongs to. For example;

```
for( i=0; i < 1000; i++ )¶
{¶
    /* do something */¶
} /* end for */¶
```

An intelligent and consistent sytem for naming identifiers can cut down on the amount of commenting required and

make programs more readable. One common convention is to use the case of identifier names to reflect the type of an object. For example, local variables and functions should be named entirely in lowercase, global variables and functions should begin with a capital letter, and constants (preprocessor comments or otherwise) written entirely in uppercase.

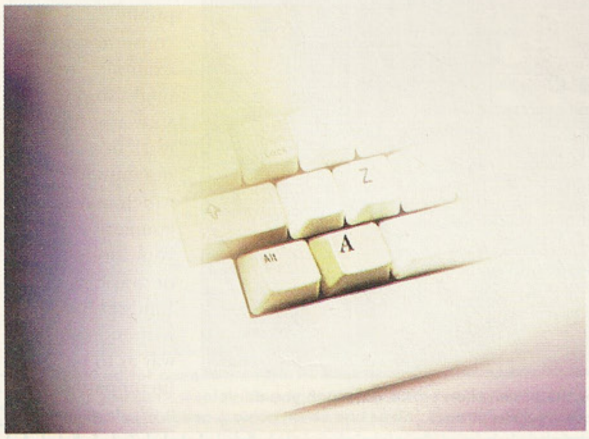
When a C program is made up from many modules, it useful to prefix global identifiers with the name of the module where they declared. This not only makes it obvious where a particular object comes from, but it can help to avoid collisions between identifier names – an especially important point when it comes to re-use.

MODULARITY

One of our criteria for good software was that it should be modular. But there's no point in designing a modular program if this is not reflected by the structure of the source code. C has rather poor support when it comes to information hiding, so it can require some thought to effectively break up the code into modules.

An obvious tactic is ensure that each module is implemented in a separate source file. C's equivalent of the module is the compilation unit: one source file and any files that it includes. Breaking up a C program into a series of files can quicken development time, since each file can be compiled separately. Making changes requires that only the source file which is modified need be re-compiled.

So, each module's implementation resides in a separate source file. Also, each module should have a header file specifying that module's interface. This should supply enough, but no more, information for clients that wish to use that module. It is sometimes the practice to lump all these interfaces specifications and other definitions into one large header file which is then included by all the source files. This is not a good idea, because any changes made to that header will require the whole project to be recompiled. It is also a barrier to re-use since the relevant parts from the header will have to be cut and pasted into another file to be able to use the corresponding module.



Listing 2

```
/*
 * program to compute squares
 *
 * RCD 6/8/99
 */


#include <stdio.h>


#define START    1
#define END      10

/*
 * square()
 *
 * PURPOSE: To compute the square of an integer
 * INPUTS:  x - the integer to be squared
 * RETURNS: x * x
 */

int
square( int x )
{
    return x * x;
}



/*
 * main()
 */

int
main( int    argc,
      char **argv )
{
    int count;

    for( count = START; count < (END + 1); count++ )
    {
        printf( "%d x %d = %d\n", count,
                                  count,
                                  square( count ) );
    }
}
```

When including headers, you should use precisely only those that are required for that particular compilation unit. This makes it easier to see what services are required by that module and can drastically reduce the amount of time and memory required for compilation. You should also ensure that the same header file is not included more than once. An easy way to achieve this is with the conditional compilation directives of the preprocessor. For example, for a header file called project.h

```
#ifndef PROJECT_H¶
#define PROJECT_H¶

/* defintions go here… */¶

#endif /* PROJECT_H */¶
```

The compilation unit is also the only means in C by which we can achieve private functions, that is, functions only visible within a particular module. In typical, non-helpful C parlance this is the static function.

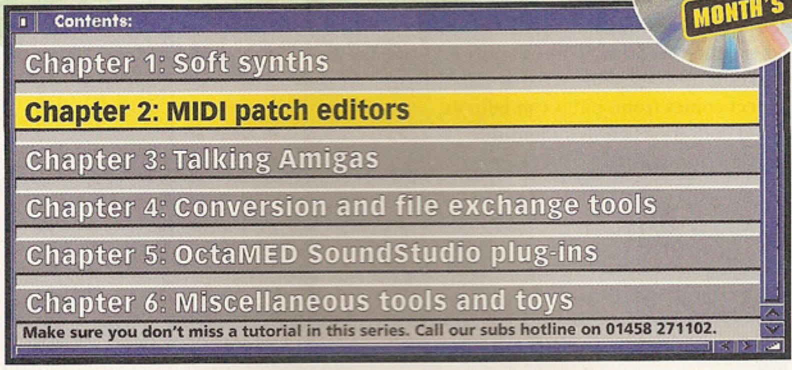
Once you start working on large projects with many source files, a little outside help is useful to get to grips with the complexity. Commercial compilers like *StormC* or *HiSoft C++* feature an integrated project manager. These will automatically scan your project for dependencies between the separate files and make sure that when changes occur the appropriate files are re-compiled. Alternatively, you can use a make utility. This will achieve similar results but requires the manual creation of a makefile describing the dependencies in your project. While this is a more powerful method, it does involve more work.

Synth Studies

If you're sick of poking around with the LCD readout on the front of your synth, get a patch editor, says Tony Horgan.



AFCD44: -In_the_Mag-/Synth_Studies

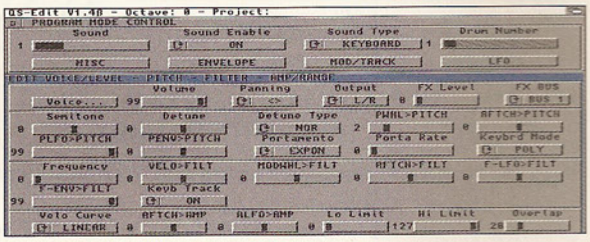


Making a habit of pointing out the numerous ways in which we Amiga users are ignored by the rest of the world would soon get tedious, but when it comes to software support for MIDI devices, it's a familiar story. As with printers, monitors and other peripherals, MIDI gear rarely if ever comes with any Amiga-specific software. However, there's an equally familiar silver lining to this cloud, in the fact that Aminet is loaded with free software to fill the gap.

> A good patch editor will allow you to alter and create new sounds with less bother and acess new parameters

You might be wondering why we need software for our synths and drum machines at all – after all, you can always edit the sounds on the hardware itself, right? Generally that's true, but even then the interfaces on many MIDI devices are far from user-friendly. Most 80s and early 90s MIDI synths use a combination of a few buttons and a tiny, often single line, LCD display, from which all the editing controls are accessed. Also, the space for storing new sounds tends to be limited, usually forcing the user to over-write existing pre-set sounds. Finally, there's the matter of cheap, powerful MIDI modules such as the Yamaha MU10, which have no sound editing controls on the hardware at all (the manufacturers assuming that you'll use the supplied PC or Mac editing software).

So in a nutshell, a good patch editor will allow you to alter and create new sounds with less bother, save as many of these to disk as you like for use in the future, and access parameters that would otherwise be out of reach.



QS-Edit is one of the elite band of patch editors which was written to take advantage of the extra gadgets available in OS2+.

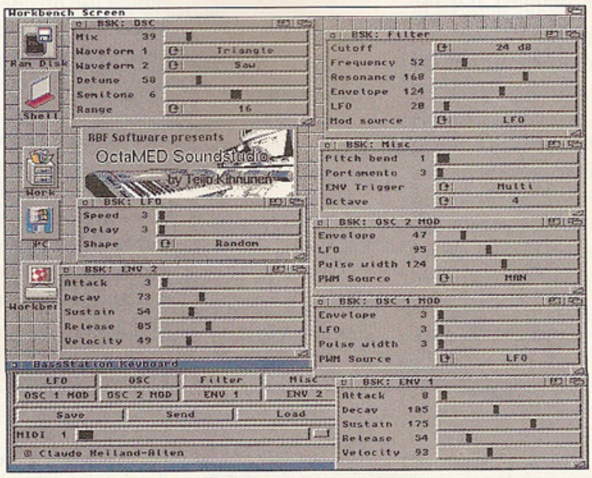
WHY SO MANY?

Because most synths and drum machines have their own specific attributes, abilities and features, it's not possible to have just one generic editor that works with all makes and models of MIDI devices. This means you'll need to find a different, specifically created editor for each of your devices you want to control in this way. I've had a good snoop around the Net and found software for all the devices listed in the What's Available box. You should find them on this issue's CD.

The exception to this is with General MIDI (GM), XG MIDI and GS MIDI devices. These are standardised in their design, so a GM editor should work with any GM device. XG MIDI is an extension of the GM standard with extra sound banks, and GS is Roland's slight variation of GM (so a GM editor should work fairly well with a GS instrument).

NATURE OF THE BEAST

Now a few words of warning. Most of these editors have come into being simply because the authors found themselves in possession of a certain piece of kit with no Amiga software to control it, and in typical Amiga style, decided to write their own. When a programmer writes software for him or herself, the resulting program tends to be rather more quirky than if it was designed primarily for public consumption. For example, you might find the software will only work in a certain screenmode, which may not be compatible with your monitor, TV or graphics card. It might have been written in such a way as to be incompatible with a whole range of



A big screen is useful for the BassStation editor, although you don't have to have all the windows open at once.

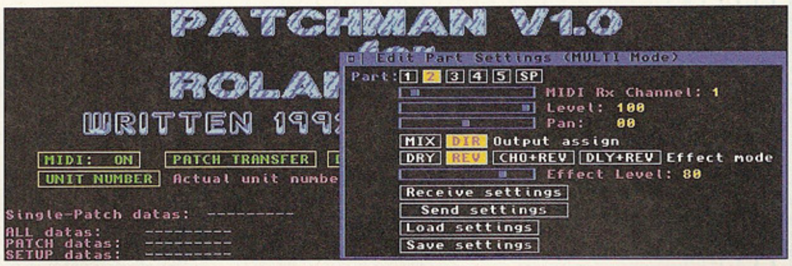
WHAT'S AVAILABLE?

Amiga editors are available for the following MIDI instruments. You'll find them on the cover CD (actual archive names are in brackets). Also make sure you check out MIDI System Explorer (MSE) regardless of whether your gear is in this list or not.

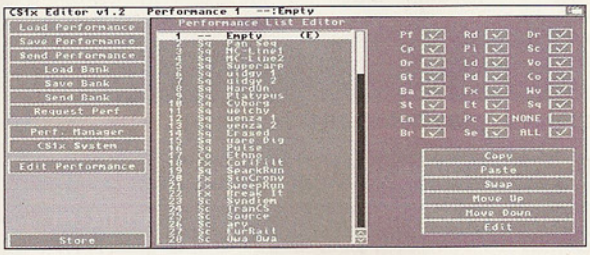
- Alesis QS series (qsedit.lha)
- Casio CZ (CZEd.lha)
- Kawai K1 (K1_Editor.lha)
- Kawai K4 (K4Editor.lha & KawaiEditor.lha)
- Korg 05R/W (05rw-base.lha)
- Novation BassStation (Bs.lzx)
- QuasiMIDI Quasar (QED098.lha)
- Roland D-110 (D110EdDemo.lha)
- Roland D-20 (VoiceEditor.lha)
- Roland E-35 (GMPM102.lha)
- Roland JD-800 (PatchMan.lha)
- Roland JV-1080 (rolandjv1080.lha)
- Roland JV-80 (rolandjv80.lha)
- Roland MT32 (io_mt32.lha)
- Yamaha AN1x (AN1xEd.lha)
- Yamaha CS1x (CS1xEdit12.lha)
- Yamaha DX series (DX100.lha & DXEditor093.lha)
- Yamaha PSS-680 (Voice680.lha)
- Yamaha RY30 (ry30ed.lha)
- Yamaha SY85 (VEd.lha)
- Yamaha TG300 (TG300pe14.lha)
- Yamaha TX81Z & DX 11 (TX81Z.lha)
- Yamaha XG/QS300 (QS300PatchEd.lha)
- Yamaha XG series (XGed09.lha, XGTool.lha & XG_Edit.lha)

AUDIO TRACK

Each part of this series will be accompanied by an audio track on the CD to give you a better idea of what's being discussed here. This month I've generated six looped sequences using Declan Gorman's fledgling AN1x editor, controlling of course a Yamaha AN1x keyboard. The AN1x can assign sequences to a patch, taking the root note from the note you press on the keyboard. Effects and parameters can be altered for each note, which is how I've got the various filter effects to work. Feel free to sample and use any of them in your own productions without fear of copyright infringements.



A lot of these editors were written a long time ago, when things like screenmode requesters were rarely seen.



The CS1x editor is one of the best of the bunch, with a logical layout, sliders and even pulldown menus!

peripherals, Workbench hacks or CPUs. So don't be surprised if you find that an editor crashes your system, refuses to quit or sends your display haywire.

I CAN DO IT IN THE MIX

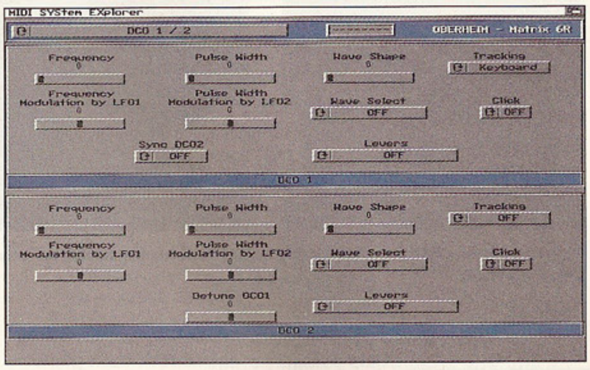
One of the best ways to use a patch editor is from within your favourite sequencer. This is not one of OctaMED SoundStudio's strong points, but other sequencers such as Bars and Pipes and Camouflage score highly in this area. When you are using a sequencer alongside a separate patch editor, you'll normally have to keep switching the serial port allocation between each program. Doing it all in one program makes things a lot less fiddly.

Camouflage (the most recent version of which is still awaiting an English language translation) comes with a built-in GM editor. This uses Camouflage's flexible GUI system to give you complete control over a GM device through a banks of knobs and sliders, and integrates seamlessly with the rest of the program.

Bars and Pipes goes a lot further. Due to its open-ended modular nature, it allows for all kinds of third party plug-ins to be added. Aminet's mus/midi section is full of this extra tools, and included among these are some patch editors. There's not enough room here to go into them all, so if you're a Bars and Pipes user, the best thing to do is scan that section and pull off the plug-ins that work with your gear.

MIDI SYSTEM EXPLORER

The closest thing you'll get to a generic patch editor that actually works is Dhomas Trenn's MIDI System Explorer (MSE). It's also the most well



MIDI System Explorer offers you the chance to write your own modules to suit whatever MIDI devices you want to control.

documented and well behaved of all the editors I've used, with comprehensive AmigaGuide documentation including a walkthrough tutorial. The shareware demo archive comes with support for the following devices: Akai S612; Boss SE50; Oberheim Matrix 6R; Oberheim Matrix 1000; Roland A880; Roland Juno 106; Roland MKS 50; Roland SDX 330. Support in the form of add-on modules is available for various other devices.

MSE uses a kind of programming language to allow anyone to generate a module for a MIDI device. This way, if you've got the time and inclination, you can make modules for all of your equipment.

TWO NEWCOMERS

My own MIDI set-up includes a Novation BassStation and a Yamaha AN1x. Both have editors available, even though they're both in an unfinished state at the moment. The AN1x software is being developed as a set of standalone modules, each of which deals with a certain aspect of sound editing. So far there are just two modules, one for the graphic equaliser and another for the built-in sequencer. If you want to try the sequencer part, you'll need to select a screenmode of more than 640 pixels in width.

A BassStation editor has been developed by Claude Heiland-Allen. It comes in two flavours, one each to suit the keyboard and rackmount version of the synth. At the moment it lacks loading and saving features for patches, which makes it a less-appealing option than just tweaking the knobs on the real thing, but development is continuing, so that should change soon.

Now that things actually seem to be happening with the Next Generation Amigas, maybe this kind of sporadic software support will become a thing of the past. I'd like to think so anyway. There's a growing swell of desire for a new kind of computer for artists and musicians, and if Amiga get it right, we should soon see NG Amiga software coming as standard with all electronic musical instruments. For now though, have a shufty through the stuff on the CD. AF

Q&A

Q Why are sounds referred to as 'patches'?

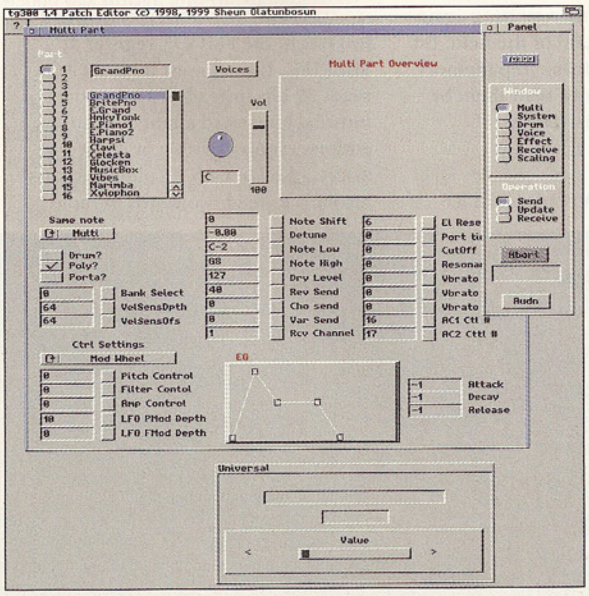
A It's to do with the way synths used to work, with lots of cables being plugged into various holes, 'patching' the circuits together.

Q There's no editor for my synths in that list. What can I do?

A It's still possible that there's an editor for your synth out there somewhere. Try searching the Internet and visit the website of your synth's manufacturer. If all else fails, get MSE and with the help of your synth manual, have a go at making your own editor module.

Q On the advice of a now defunct magazine, I installed a Yamaha DB50XG soundcard daughterboard to my Amiga. This has no editing controls on it at all and I can't even access the non-General MIDI sounds. Is there something here for me?

A Yes. You can use any of the Yamaha XG compatible editors.



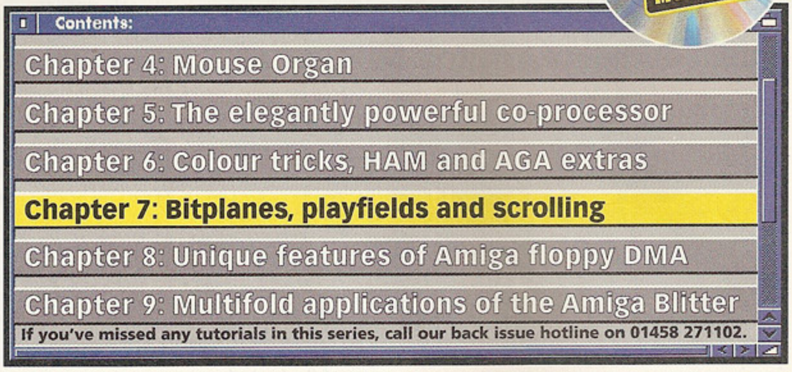
This TG300 editor opens on a 72Hz interlaced Productivity screen by default. If you can't display that, try opening it on another Amiga, changing the settings to a video mode and saving them to disk.

Banging the Metal

Simon Goodwin tickles Amiga bit planes and playfields

AFCD44:-In_the_Mag-/Banging_The_Metal

ON THIS MONTH'S CD



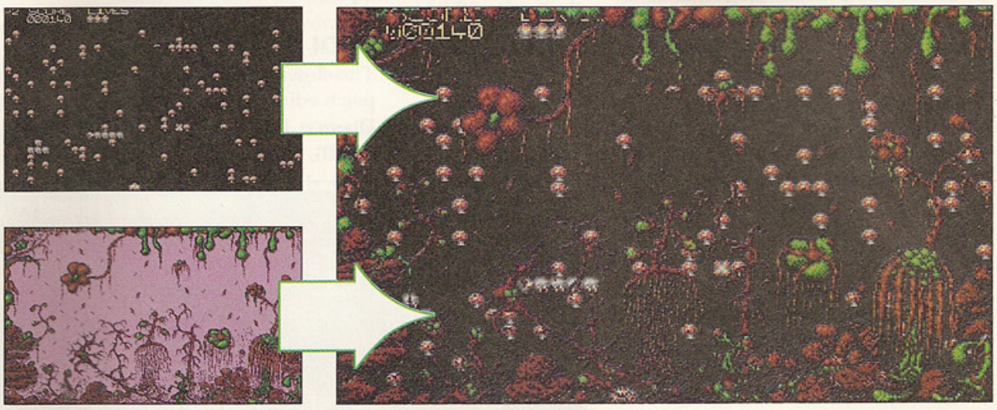
This issue Amiga screens, bit planes and scrolling playfields drift past our microscope, and I shall explain AGA improvements which let 32 bit Amigas fetch data four times faster than the original models.

Jay Miner's screen architecture still has advantages over other schemes. Even now, rival computers show everything on one screen in a preset mode, laboriously copying display contents as they are moved around. This is inefficient because simple text pages might only use a few colours, yet anything up to 32 bits per pixel might need copying, to preserve the potential for full colour displays elsewhere on a lone general-purpose screen.

The Amiga design allows many screens to be stored in memory at once, flipped between or dragged with the mouse, with no need to copy data. Thus text and file displays can be quickly, concisely rendered in a small number of colours, while applications open other screens in custom modes and sizes for pixel painting, web browsing, games and video.

Last month we saw how the Amiga combines bit values to determine the colour of each pixel. Now we examine the way screens are held in memory, and the way images can be moved around.

> The Amiga design allows many screens to be stored in memory at once, switched or dragged by the mouse



This Amigafied Centipede reserves one playfield for the backdrop, confining game action and collision detection to the other playfield

SCREENS

The simplest mono screen uses just one bit per pixel. A default Workbench uses two, giving four colours, MUI expects at least three, for its default eight colour palette, and so on up to six planes for 16 bit Amigas. AGA's allows eight planes, for 256 palette colours or hundreds of thousands in HAM8 mode.

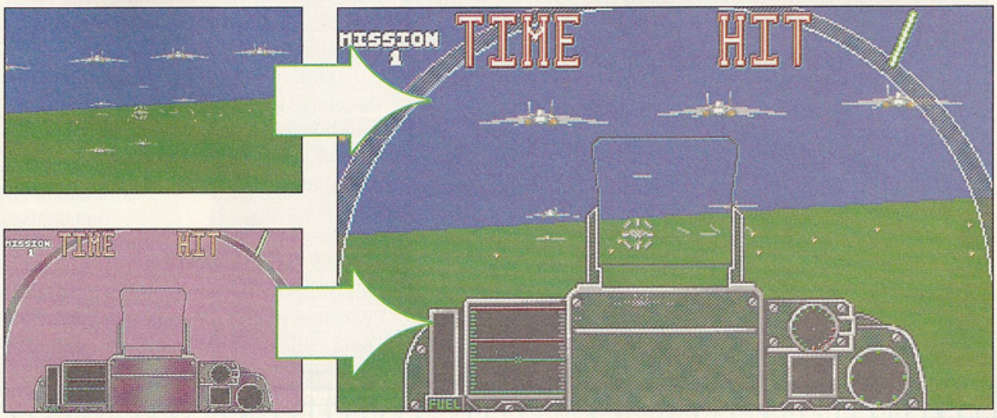
The bits that make up an image are stored in 'planes', each contributing one bit for each pixel. All the planes are the same size, and the total number of planes determines the range of colours. The bits for any one pixel are distributed across all the planes, which is why special 'chunky graphics' tricks have had to be developed for efficient rendering in programs that generate a pixel at a time.

In part 5 we saw the copper setting up pointers to the start of each plane. Each screen is generated by scanning that memory, writing out lines of pixels from top to bottom, then starting again from the top, at the end of the field. Bit planes are allocated from chip memory, where custom chips can read them by Direct Memory Access (DMA).

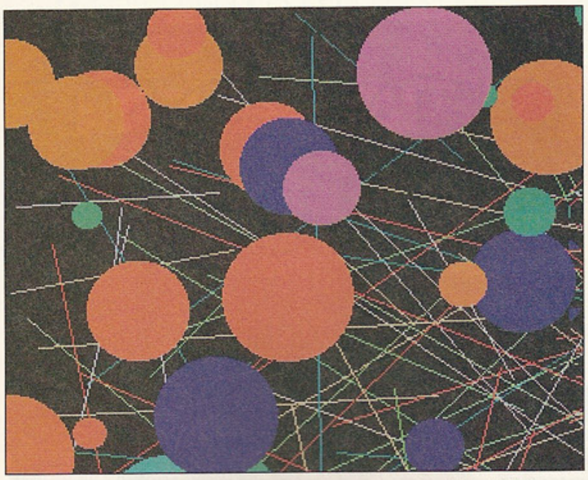
AGA BOOST

Original Amiga DMA reads up to 3.6 million 16 bit words every second. AGA doubles and quadruples that rate, allowing any mode in any resolution, by fetching 32 rather than 16 bits, and optionally reading words in pairs.

This enhancement is controlled by two bits in the FMODE register at $DFF1FC. If the lowest bit is set AGA reads 32 bits instead of 16, but data must be long-word aligned, at an address evenly divisible by 4. Bit 1 asserts 'double CAS' (Column Access Strobe), to read two words in rapid



Arcade sim G-LOC uses one playfield for the cockpit and another for the world outside



Our Blitz BASIC demo swirls two playfields around impressively

Dual Playfield screen scrolling in Blitz BASIC

```
BLITZ ;BASIC 2 demo of dual scrolling playfields
BitMap 0,640,512,3:For i=0 To 149 ;coloured lines
Line Rnd(640),Rnd(512),Rnd(640),Rnd(512),Rnd(7):Next

BitMap 1,640,512,3 :For i=0 To 99 ;coloured balls
Circlef Rnd(640),Rnd(512),Rnd(35)+5,Rnd(6)+1 : Next

Slice 0,44,320,256,$fffa,6,8,16,640,640 : Mouse On

While Joyb(0)=0 :  VWait : r+.05 : x1=MouseX
y1=MouseY  : x2=160-Sin(r)*160 : y2=128-Cos(r)*128
ShowF 1,x1,y1,x2  : ShowB 0,x2,y2,x1 : Wend : End
```

succession. Set both for quadruple speed, with bit plane data aligned on 64 bit boundaries.

WE CONTROL THE VERTICAL

If you allocate memory for extra lines, you can scroll an image up or down by adjusting the address in the copper list which tells the Amiga where to get the first line. Add the value in BPLMOD (the step or 'modulo' between lines) and the plane will move up a line. Normally you do this for all the active planes, or the colours get out of step, but you can shift planes separately for demo images that merge together from top and bottom.

To see this, run CopperFile from a shell then type MORE RAM:CLIST until you see a line like: 1138732 MOVE 63000 to BPL1PTL. Remember both numbers, which will be different on your system, and don't swap screens, or that copper list address will become obsolete. Press Control C to stop MORE, then type something like POKE WORD 1138734 63176.

Here 1138734 is the second word of the MOVE instruction, where the offset 63000 was stored, and the extra 176 is the gap between lines, from BPL0MOD, which varies depending on the mode. You should see a display shift, the effect of fetching bit plane one a line later. POKE the old value back or swap screens to restore normal viewing.

Misdirected POKEing can cause crashes, so save vital data before you try it. Then try POKEs to alter other BPLPT settings, sliding your screen view through chip memory!

THE DISPLAY WINDOW

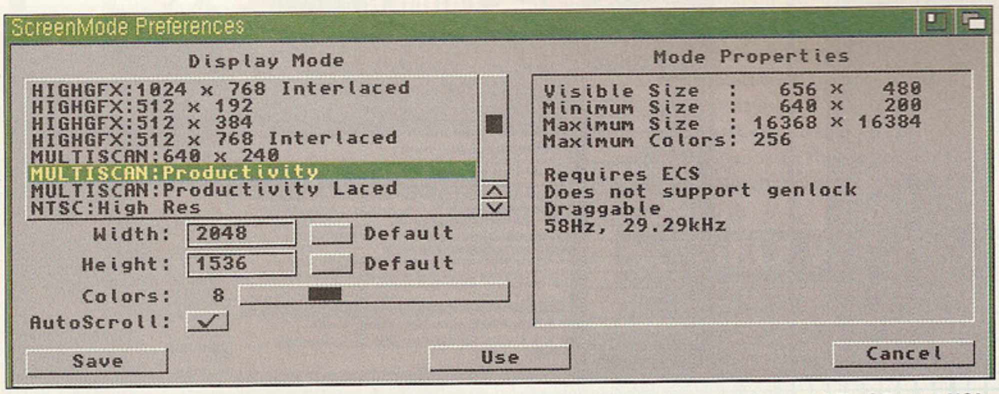
You can have fun with Action Replay on an old Amiga by pressing the magic button then entering 'p' to view the Amiga picture, and using the vertical arrows to move the bit plane pointers. A system-compatible version could combine the above POKEs with PEEKs from the Copper Disassembler.

Each Copper list sets the bounds of the screen in two ways. Display fetch registers tell the custom chips when to start and stop fetching data for each screen line. These are restricted by the amount of data the Amiga must fetch in each gulp of bit plane DMA. We can pan in big steps by adding two or more to each bit plane start address, but only ST users tolerate scrolling on 16 pixel steps, let alone 64.

WE CONTROL THE HORIZONTAL

The Amiga solution is separate 'display window' registers, which set screen border limits, determining how much video data makes it onto the screen. Shift registers can delay pixel output by up to the time needed to fetch one set of words. Together, these techniques allow smooth horizontal scrolling.

The trick is always to fetch the whole words, setting the display window just after the first word has been fetched. To push the picture to the right, trim the delay so that progressively more pixels of the first word appear. When the delay is zero, move the bit plane pointers back one word, and start again with maximum delay. The result is pixel-perfect scrolling, with no need to copy any data around.



A three megapixel Superbitmap scrolling Magic Workbench leaves chip RAM for Directory Opus and Final Copy at VGA resolution, and five smaller colour screens

DUAL PLAYFIELDS

A scrollable group of bit planes is known by the old Atari term 'playfield'. Amigas can combine two playfields, with one independently scrolling above the other. This arcade trick allows *G-LOC* to render a cockpit in one playfield, with the outside world in a second playfield underneath. *Centipede* similarly overlays dynamic game features over decorative terrain.

Simon Armstrong's *IsoBlaster*, written for AF52, is a fine short BASIC example, with animated characters in one plane moving over a big map, smoothly scrolled underneath. The foreground field is swapped every frame to banish update glitches.

Dual playfields can be different sizes, smooth-scrolling independently, thanks to separate delay and modulo registers for each. This is ideal for parallax scrolling.

This month's Blitz BASIC example consumes hardly any Amiga CPU time, but brings UAE to its knees. Move the blobs over the swirling lines with the mouse, and press the left button to quit when you get dizzy. The arcane SLICE command sets up the custom copper list.

Original Amigas allow up to eight colours per playfield, and extra AGA bit planes permit two 16 colour playfields. The so-called 'AGA' version of the brute-force Amiga emulator doesn't even try to juggle these!

NEXT ISSUE

Amiga disk handling is another unique feature. The ports are so versatile they've been used for networking and MPEG decoding, as well as floppy drives. Amigas fit more data on any given disk, which is why 'standard' micros are incapable of reading typical Amiga 880K or 1760K formats. No other computer can easily write four disks at once, with negligible overhead! We shall probe the Amiga's floppy secrets next month.

Amiga.net

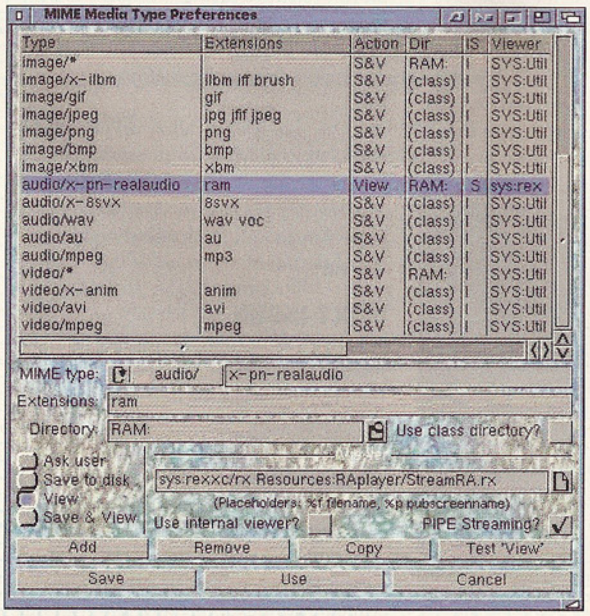
Dave Cusick looks at ways of souping up your browser with plug-ins

The Web is constantly evolving, with new multimedia technologies appearing all the time as various companies and developers attempt to enrich the browsing experience for users whilst making themselves a few quid into the bargain. Examples of these technologies are all over the place; a few years ago nobody had thought it would be possible or practical to broadcast audio over the Internet, but then Real Networks developed RealAudio. Until 18 months ago there was no obvious way of compressing high quality audio into files small enough to be transmitted over the Internet, but then the Mpeg 1 Layer 3 (MP3) format caught on and now, of course, it's so popular that some record companies, unable to resist its momentum, have actually begun to embrace it. Of course it would be unrealistic to expect users to download an updated version of their favourite browser every time a new technology emerged, and just as unrealistic to expect the browser developers to be able to keep track of all the new technologies and actually implement support for those within their browsers. Even if they could, with so many new technologies out there, browsers would become ridiculously bloated. On the Amiga, where file sizes have always been slim, this would be a major annoyance. Over in PC land, of course, users have to be prepared to launch a 20Mb-plus download every time they want to update Internet Explorer; but contrast that with the latest release of an Amiga browser, which would be well under a tenth of that size. Consequently things called plug-ins have become an integral part of the Web browsing experience. Plug-ins expand the functionality of browsers. Sometimes this can be by doing something as simple as providing an interface between your browser and your e-mail client so that when you click on an e-mail link on a Web page, your e-mail client is automatically launched, ready to send a new message, with the appropriate e-mail address already entered into the Recipient field. (Of course, some browsers support things like this internally anyway). The most common use of plug-ins though is in enabling browsers to deal with new technologies, therefore enhancing the browsing experience. One of the most popular plug-in dependent technologies on the Internet is RealAudio, a streaming audio format. Effectively it makes it possible to listen to high quality audio over the Internet without having to wait for a large file to be downloaded; heavily compressed audio information is sent in real time.

> "Plug-ins have become an integral part of the Web browsing experience. Plug-ins expand browser functionality."

Contents:

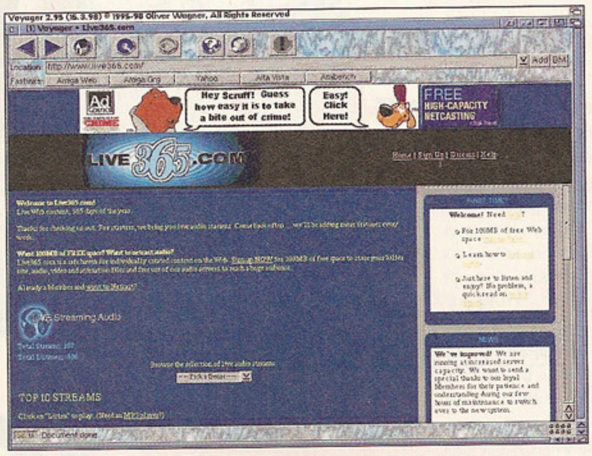
If you've missed any tutorials in this series, call our back issue hotline on 01458 271102.



This is how you need to set up Voyager in order to use StreamRA



Don't get your hopes up too high; the sort of files you'll find at cutting edge sites like Broadcast.com won't work



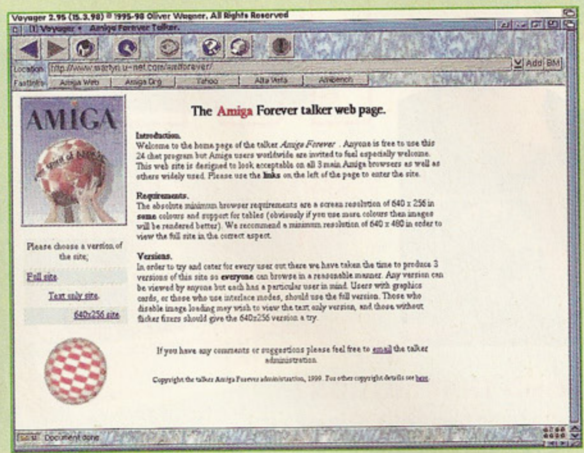
Live365 offers plenty of MP3 streams which work well with StreamMP3

With RealAudio technology, you can listen to live concert Webcasts, tune into Net radio stations, and far more besides. RealAudio has been around in various forms for several years now. Unfortunately its developers, Real Networks, have chosen to ignore a number of platforms completely, and the Amiga has been one of them, so it's only recently that third party ports have opened up the world of RealAudio to Amiga users – albeit in a somewhat limited way. Whilst the PC owning world is using RealMedia G2, (which is version 5 of the software, if my memory serves me correctly) on the Amiga it's only possible to listen to files encoded for use in versions 1 and 2 of RealAudio. If you visit the Amiga RealAudio Support page, in all probability you'll be a little confused as to the best way of setting your Amiga up to use RealAudio – at the time of writing at least, it offers plenty of information but it's scarcely in a very accessible or clear format. But it's really not that difficult getting some basic RealAudio support into your browser. The problem with the approach taken by some of the ports is that because Amiga browsers don't as yet support data streaming, you have to download the entire file before listening to it. To a certain point this defeats the objective of having found a RealAudio file to listen to rather than, for instance, an ordinary MP3 file. Fortunately thanks to the wonders of some nifty programming and some clever little ARexx scripts, it is possible for you to listen to streamed RealAudio files. You won't be able to play them all; most new streamed content uses a different file format which can't yet be decoded on the Amiga. Older files optimised for 14.4k and 28.8k modems will usually work however, and there are still some sites where these can be found. Look for RAPlayer.lha (the link is about halfway down the page); it's capable of playing RealAudio streams optimised for 14.4k and 28.8k modems without requiring two separate executables, one for each format. It's also capable of streaming very effectively. You'll need an 040 to run RAPlayer – unless you have the Amiga.net special edition, specially compiled by author Sigbjorn Skjaeret because currently yours truly is languishing in the positively pedestrian world of the 030 (in a desperate but possibly misguided effort to prove that it is indeed possible to access the Internet using something considerably less than a 600 MHz PC clone). You'll also need rxsocket.library if you don't already have it, and AHI installed on your system (unsurprisingly, both are on Aminet). Make sure AHI is set up properly and the AUDIO: and PIPE: devices are mounted – when you install AHI you'll be asked if you want things to start automatically when your system boots up, and this is the easiest way of making sure AHI is all up and running. With all this in place, you can follow the instructions in the RAPlayer ReadMe document to configure the MIME preferences in your favourite browser. Take a look at the screenshot to see how Voyager needs to be set up – just create a new MIMEtype and enter everything as it appears here (obviously changing the file path to point to the location of the StreamRA.rx file on your system). To try the system out, visit the Goldtooth page or Art Bell's Page. Unfortunately if you visit one of the cutting edge streaming sites, such as Broadcast.com or even the BBC Online site, you'll find the files on offer won't work. On the subject of streaming technologies, the chap who produced the StreamRA script has also now come up with StreamMP3. This lets you listen to streamed MP3 files. Streamed MP3 files are catching on in a big way because of a system called Shoutcast, which lets users broadcast their own streams from their home computer. There are a number of Web sites through which people can then have their "radio shows" relayed to the world, rather than having to run their own Shoutcast server software (there's a Linux Shoutcast server called Icecast, but as yet no Amiga server.) One such site is Live365. With streaming MP3, unlike with RealAudio on the Amiga, you're right at the cutting edge of development; the technology is only just becoming really popular. What's more, even on a relatively modest modem connection, the audio quality can be pretty good.

> "It's really not that difficult getting some basic RealAudio support into your Amiga's Web browser."

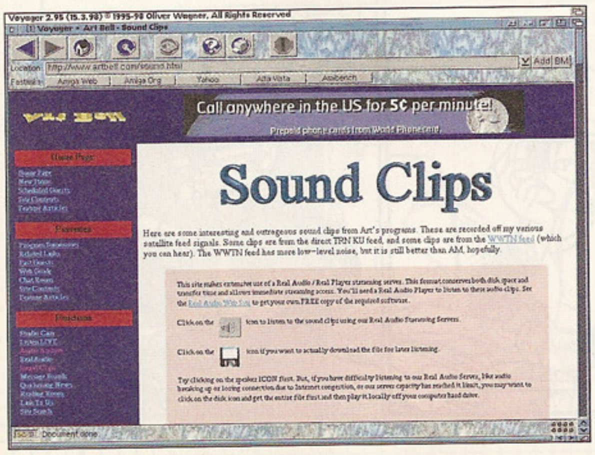
HAPPY TALKING

Fancy the idea of a MUD without the gaming? Well that's how Martyn Bampton describes Amiga Forever, a new talker which he and a few friends have put together. If you don't fancy IRC or ICQ, it's an interesting method of communicating online. Take a peek at the Amiga Forever site, at http://web.ukonline.co.uk/martyn/amiforever/index.html, for more about it.



The Amiga Talker Web site

Art Bell's page contains a selection of decent RealAudio clips which work well on the Amiga



NOTABLE WEB SITES

Amiga RealAudio Support page - csc.smsu.edu/~strauser/RA.html
Goldtooth page - www.goldtoothdisplay.com/avpage.shtml
Art Bell's page - www.artbell.com/sound.html
Live365 - www.live365.com
Icecast - www.icecast.com





MailBag

Send your letters to: Letters To The Editor • Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW or email: amformat@futurenet.co.uk – putting 'Mailbag' in the subject line.

SPARE US	SEND US
• Long, looong letters with numerous points. Keep it concise!	More designs for a new Amiga •
• Letters addressed to Mailbag that ought to really go elsewhere.	What you thought of WoA this year •
• Questions asking why Amiga aren't advertising on ITV yet	Lookielikies for Amiga people •
• Technical questions which should be addressed to Workbench	Comments on the new tutorial format •
	Things Amiga need to get right •
	General questions you want answered • (not technical ones – that's what Workbench is for!)

SECOND THAT MOTION?

I seem to remember reading in *AF* a few months ago that a 'Prograb Motion' was imminent. Since then I've heard no more about it. Is it still on the cards? Or has it gone the way of other great ideas for the Amiga?

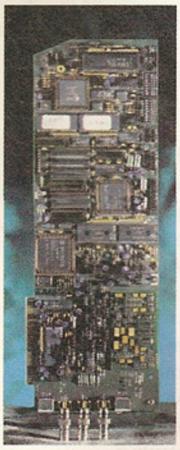
I hope that the position of the Amiga, as the king of computers for the video buff is not going to be lost, and that the makers of hardware/software for the Amiga remember it's up the sleeve!

At this time, with large hard drives, accelerators and memory being easier to buy than ever before, the idea of being able to use non-linear video and sound editing/manipulation/effects, could be just the boost the Amiga needs, especially if it supports cross platform movie, still graphics and sound file formats.

In the August issue mention was made of the fact that the 'Video Toaster' was never made in PAL format. Maybe it would be a good idea for someone to do just that. In the meantime, although I have heard of the Video Toaster, I don't know any details, and would be fascinated to hear a bit more about that particular beast!

FJ Hudson
Alvaston

Really? I don't remember putting anything in about a new version of ProGrab recently. Certainly a long time ago, Harwoods promised a more up-to-date version of their video grabber, but I don't think it ever materialised. The nearest that people got to consumer-level non-linear editing (NLE) is MacroSystem's VLab Motion card, but you needed their 16-bit sound card Toccata if you wanted audio with that video. As for the PAL Toaster, it's easy to ask why Newtek never made one, but the Sony chipset they relied on for 90% of the Toaster's abilities was only ever made in NTSC.

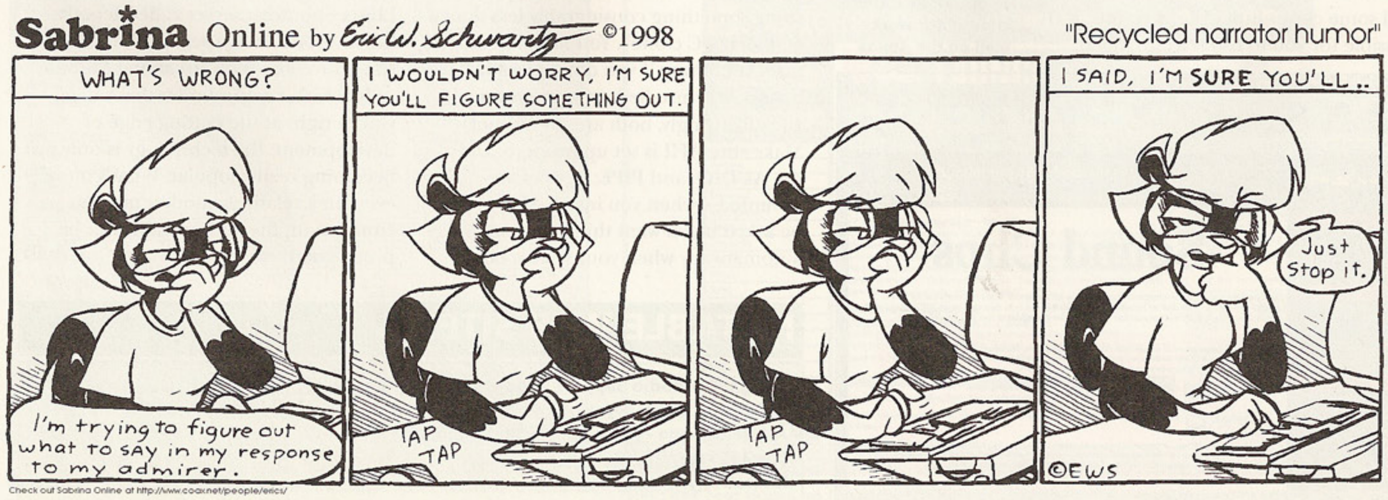


The Video Toaster – only available for people with a crap TV system.

SINCLAIR NG?

I used to be a Sinclair Computer fanatic way back in the '80s when they sold out to Amstrad on April 7th 1986, before owning C64's and Amigas. One of the terms of Amstrad's buyout was that Sinclair had to submit any further designs for machines to Amstrad, before going ahead. At the time of calling in the receivers it was rumoured that Sinclair's thinktank, Metalabs, were busy designing the LOKI project, a new powerful computer. Notably, the only offering after the buyout was the Z88 from Cambridge Computers.

Now that Amstrad is dead and buried you would have thought the above mentioned terms are void, and I have read somewhere that around the time that this Amiga NG machine is ready, Sinclair is to unveil a new machine called the Sinclair ZX200, using a revolutionary hardware design. My point to all this: is it a rumour? If not, has there been some recent development in computing that is getting all these companies rising like a phoenix from the ashes again? Competition can only be good news, but Sir Clive Sinclair is and always was an innovator, does he feel the time is ripe in computing for innovation again? Is there a secret development in computing that everyone wants to keep quiet at the moment, what with Amiga



Check out Sabrina Online at http://www.coaxnet/people/erics/

International and its mystery next generation CPU? Or am I just being paranoid, either way this announcement, if true, can only be good news, to the computer industry, computer users and technology overall.

Mr K.C. Harrison
Bridlington

There are always rumours of new machines popping up all over the place, and I agree, a new machine from sir Clive could only be interesting. However, we'll just have to wait and see – as usual!

COLIN GETS A KICKING!

It's never happened before, BUT, I just had to write and tell you that the person that sets out your magazine needs a good kicking.

In the May 1999 issue the readers' ads and the shopwatch forms were printed back to back. A fact that I had not realised until I had cut out the readers' ads form. Can you please ensure that it does not happen again, because now I can't send in my shopwatch contribution.

Anyway, now that I have had my moan, the magazine is very good, although a little thin. Is there any chance of a tutorial on Imagine 2.0, 3.0, 4.0 or 5.0? I know that you have done one before, but there is a new generation of 3D artists out there now.

In November of 1998, I was watching The Bill on television when they opened a lock-up garage and there inside was a box with 18 inch high letters on saying 'Amiga' (The new logo with the red dot on the 'I'). AND on around the 2nd April 1999 the Amiga got a mention on that week known PC advert, Cybernet.

Terry Green
Rotherham

Ah well, the perils of not really having enough ads in the magazine, I'm afraid. Still while the following issue probably made your blood boil too, the July ish probably dropped your blood pressure as much as stroking a cat for fourteen hours would have done, no?

NEW DESIGN PT. 1



Here's Loriano's current setup, with his home-made tower...

Hello! My name is Loriano Pagni and I'm a student of Industrial Design, more specifically Transport Design, at Coventry University. I have been using Commodore computers since 1983: Vic20; C64 – the best 8 bit ever! Sinclair, Atari? Never touched the stuff! And the Amiga... what can I say? Since 1986: A1000; A500; A500+; A1200 expanded – the one that I still own. Superb. I use different computers – Apple and (yuk!) PCs for different reasons but the Amiga is special.

Included you can find a photo of my A1200. This is to show people that if you want to save a bit of money and have fun you can build your own tower from a few bits of wood. In this photo you can see an SVGA monitor connected to the Amiga via a splendid scandoubler/flicker fixer from Eyetech, an A4000 keyboard connected via a Power keyboard interface, the audio goes to the stereo. The tower contains a PC PSU that feeds the motherboard, floppy drive, CD-ROM, hard drive and monitor. The tower also has a transparent plexiglass front cover (not in this photo, so as to avoid reflection).

The other photographs show a concept for a new Amiga case and it's also my entry for the Gallery, so feel free to let me win the prize! The case borrows ideas from the iMac with integrated screen, and the glorious A1000 with the keyboard compartment underneath the case. The case itself is in the shape of an 'A'. It's all made of paper and the new AmigaNG logo is based on a complete new typeface I designed and contains upper and lower case, bold and thin, plus numbers and incidentals. There are side and back views as well. I hope you like it.

PS Sorry about my English, but I'm Italian and I moved to England in '97 to study and then decided to stay. You know, England is cool, apart from the weather and being an Amigan is a bit easier.

PPS Feel free to recommend my design to anyone interested...maybe Amiga Inc?

PPPS Keep up the good work. I have been reading your magazine for more than six years now and I can't wait for the next issue to come out. It's a shame that it only takes me a couple of days to read it all.

Loriano Pagni
Solihull

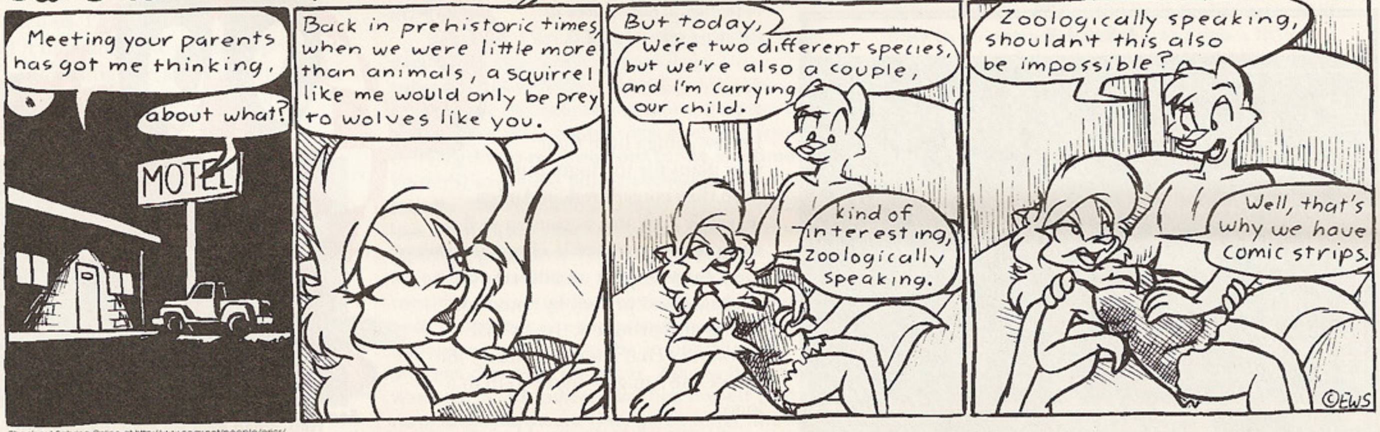
In response to your last point first, there will be extra editorial pages in the next issue, although the issue won't get any thicker. Thanks for your design for the next Amiga – it's great!

Continued overleaf ➡



...and what he'd like the new Amiga to look like (except presumably not made of cardboard?)

Sabrina Online by Eric W. Schwartz ©1998 "Road Trip Part 2: En Route Philosophy"



Check out Sabrina Online at http://www.coax.net/people/erics/

SICK AS A PARROT

I bought Championship Manager 2 for £5 (new) a few weeks ago, and for a while I had problems with the game because it crashed fairly often, as it did for Andy Smith (and for other readers if the Mailbag is anything to go by). However, after I removed my external CD-ROM drive interface (a CD1200 plugged into the PCMCIA port), and disabled my hard drive (both partitions) from the early startup menu, the game worked fine. I only have a low-spec Amiga (a 1200 with an external 8 speed CD-ROM drive, 540MB internal hard drive and a 4MB RAM expansion), but this information won't help other readers to run the game. Disabling the hard drive every time you want to play isn't ideal, but at least it works.

By the way, I think Andy was extremely harsh on the game – I find it very good, with some nice touches (such as older players becoming managers – in my saved game, Neville Southall is player-manager of West Ham), and although it is reasonably slow, a lot of people are prepared to wait around for hours, even days, for 3D renders, so a few minutes between matches isn't that much. Just read a magazine or something in the meantime. Still, each to his own, one man's meat and all that...

I only have one more point, and this too is an old chestnut – piracy. You printed a large article in Issue 123 regarding piracy for the Amiga, but then I found, on AFCD 41, in the drawer AFCD41:-ScreenPlay-/OtherStuff/Itx-stuntcar, the full version of Stunt Car Racer! I don't think you would deliberately put this onto the CD (the readme describes it as a fix, when it is actually the full game), and I suppose it 'slipped through the gate', but I don't think Latex (the group who produced the 'fix') got permission from Geoff Crammond or Microprose, and as far as I know it hasn't been released as freeware. It probably won't affect anyone, but is still the copyright of Geoff Crammond and Microprose, and is therefore copyright theft. Didn't anybody check it before the final CD was cut?

Anyway, thanks for your time, and keep up the good work!

Phil Davies
Caerphilly

It has to be said that 3D renders are one offs, whereas you'd expect those kind of waits for every match you'd play in CM2, a somewhat different prospect. The fact of the matter is that even if the game had been top-notch, it didn't excuse the developers from not paying attention to the state of the Amigas people are using when they developed the game. I've seen the PC version. They said they had to take lots of stuff out to fit on an Amiga, but they wouldn't have done if they'd actually tried writing for a reasonably modern system.

As for the Stunt Car Racer thing, no we weren't aware that it was basically a pirate version, and obviously neither was Urban Müller who runs Aminet (which is where it came from). It only crashes on my machine, so I couldn't check it, besides which we had 23,000 other files to have a look at before we pressed the CD.



"And Championship Manager 2 shoots... and skies the ball! The crowd have got to be upset at that, Brian."

TECHNICAL SPEC

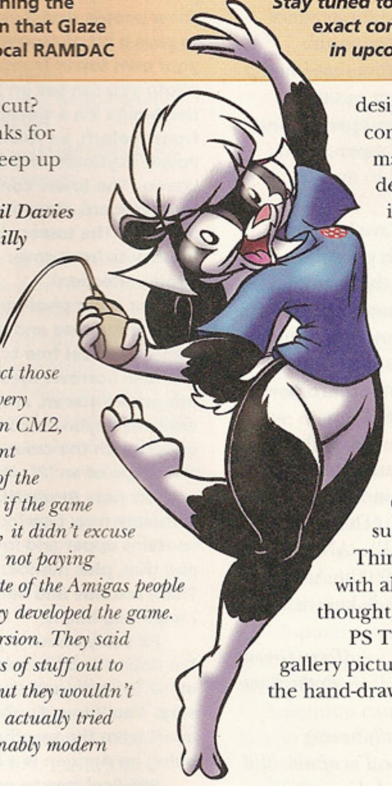
Firstly, I want to say that I am glad Amiga Inc. are almost finished in developing the next generation Amiga technology! The problem is that they still haven't decided the final components in terms of CPU and multimedia chipset. Their shortlist is currently PowerPC, Mips, Alpha, Transmeta, ProjectX and Glaze 3D

Personally, I want the company currently known as Amiga to chose the PPC-64 Altivec to be used as CPU in the AmigaNG, not as the main CPU, but as a CPU to keep 100% compatibility with classic PowerPC games, while AmigaNG specific games will be written for multimedia chips – chips like Transmeta, ProjectX and Glaze 3D (in C++/Java2).

As for multimedia chipset, Amiga should chose Glaze3D as the foundation multimedia chip, on a single multimedia card for the AmigaNG. Since Bitboys OY is currently performance-tuning the architecture of Glaze 3D, it should mean that Glaze 3D should have DVD support, 256-bit local RAMDAC bus, instead of its 128-bit, HDTV – resolutions up to 2048 X 2048 and perhaps even increase the 400m pixels per second to a maximum of 800m pixels per second. This should make Glaze 3D the fastest, best and the ultimate multimedia chip being programmable for new, added and improved instructions by software, knocking out the new cards like Millennium G400. Maybe the new Glaze 3D should be renamed to something like Millennium Glaze 3D multimedia chipset. All this should make it simpler (and safer) for Amiga to make the right choices. I trust the company Amiga. The future looks bright!

Helge Kralheim
Norway

Wow! You have some keen ideas for spec for the new machine, but I'm sure Amiga have others. Stay tuned to learn more about the exact contents of the new Amiga in upcoming issues of AF.



NEW DESIGN PT. 2

I know Amiga have their own plans for the logo, but have they considered an Amiga mascot? I ask this because a well designed, recognisable character always has a huge impact on adverts and packaging, as proven by countless games and products. It was Eric Schwartz's characters that made me notice the Amiga – more so than a logo.

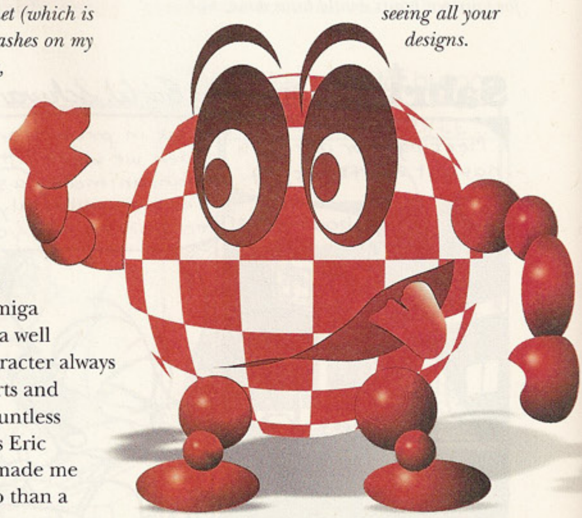
So maybe Amiga could start a design a mascot competition. If not a mascot, how about a poster design, merchandise, innovative packaging ideas?

Get everyone involved on all platforms, hype it up, and offer a really impressive prize. Few creative types could resist the challenge, and art/design colleges and mags like Computer Arts would surely want to be involved. Think what could be done with all that publicity! Just a thought, anyway.

PS Thanks for printing my gallery pictures. I'm not sure what the hand-drawn thing is either...

Nick Rowe
Halesowen

The boing ball makes an effective start for a cuddly, chequered PacMan-type of thing. We look forward to seeing all your designs.



See? Col came up with this in five minutes. I'm sure you lot could do better.

SO IT GOES

So impressed was I when I recently played the demo of Gilbert Goodmate from your coverdisk CD, I just had to write to Alive Mediasoft and ask when it was coming out. Just over three weeks later I received a reply, which in itself would hardly win any prizes for being a letter. This was signed by a Jennie Flowers, telling me they'd dropped it and a company in Herts called Crystal was supposed to be publishing it. So much for that, I thought. But then, maybe Crystal could tell us if and when it's coming out, that is if anyone out there knows their address. With my reply I received a photocopied catalogue offering me the world and informing me they were totally dedicated to the Amiga and, not only that, Number One in England! Great, I thought. Much too good to be true, isn't it? To quote a Steve I finally managed to speak to, 'No one can touch us when it comes to the Amiga, We're the best and for Mail Order we have our finger on the pulse!'. In other words very good at talking but absolutely useless when it comes to any action. Having sent a test order it eventually arrived almost three weeks later, and guess what? Yes the wrong games, well to be fair, two right, one wrong, but no answer to letters requesting them changed. So why then is it I get the impression Alive's run from some schoolboy's bedroom? Could it be because they ignore their mail, don't answer messages left on their so-called Web site or might it be because they send out the wrong orders and do nothing about it? Now, call me old-fashioned if you like, but if you're running a business, isn't it through paying customers you make your money? I'll certainly think twice before ordering anything again. But then, is it just me, or do they treat all your readers the same?

It's all very well for readers the like of Matthew O'Neil (Issue 125 Mailbag) who tell us 'Everyone who reads *AF* has read it time and time again, so progress with something else as it's getting boring reading the same old thing'. Well, let me just say there's a great many of us out here who would very much like to know the basics. I, like countless other Amiga users, was slow off the block and have a lot of catching up to do before I can call myself a gifted immature, let alone someone who knows it all. The Amiga is without doubt a fantastic little machine, but when it comes to the technical side, I don't mind admitting, I haven't a clue. Working on the theory you don't have to be a mechanic to drive a car, I know where most files go and what to do if my Amiga crashes. But when it comes to anything else it all goes right over my head. For instance: On the CD, there's a section that says 'Ben Speaks'. Until recently he didn't, well that is to say, not on my computer. What I used to get was a box that told me it couldn't create a CL_String. This is probably because IBrowse couldn't find the MCC/Newstring.MCC...

In other words, how about a section entitled 'The complete and utter idiot's guide to the Amiga' incorporating: What files do; How to use them; Where to put them and where we can get/find them if we don't have them.

If you've read this far, many thanks.

RL Nettleton
Surrey

What a long letter! Okay, you've raised interesting points, so I will take them one by one, but please can everyone who wants to write in keep your letters more concise, asking only one or two points? It just keeps the mailbag page a little more lively. Aaaaanyway, taking your points in order. I'm sorry you had a bad experience with Alive, but the coverdisk demo of Gilbert Goodmate was probably organised before the split with Crystal anyway. However, your complaint about their service is more serious and I hope that they don't treat all their customers this way and it was just a glitch.

Your next point about iBrowse is well taken (the Newstring.mcc file can be found in the iBrowse drawer. It needs to be put into your MUI:libs/mui/ drawer. It's easiest to do this with a file manager program, but there's too much to talk about here...). This month we're starting a complete beginners series of tutorials. You'll find the first one starting on page 60.



Poor old Gilbert! Gets his own game, only to be trashed at the last minute. D'oh!

COMMODORE STOLEN?

Enclosed is something a mate (a PC owner) found while browsing around PC World. I was in shock when I saw it.

I was so shocked to see the Commodore name being used, then even more surprised when there was no sign of what I'd called a Commodore 64. Imagine my horror when I looked on the back only to discover that someone had the nerve to use this wonderful name, but also mention Windows.

From what I can gather it is a PC just for net access, but they must have felt that calling it a PC wouldn't help so they STOLE the Commodore 64 name. At least there isn't an Intel CPU, but AMD is just as bad.

Next year we'll probably be seeing an Atari 800XL version, which was my first home computer.

David Bateman
York.

They haven't actually "stolen" the Commodore 64 name. When Commodore went bust Escom bought the Amiga and the Commodore name. However when they closed down, as we know, the Amiga went to Gateway, while the Commodore name languished for a while. Eventually it was bought by Tulip Computers of Holland, and either they've licensed the name to this company, or they've bought the name from Tulip. No-one replied to my emails so I don't know either way. Still seems like a pretty horrible computer to use – Windows 3.1? Ughh.



Looks nice, but crap specification – almost the opposite of the original machine.

BACKSTAGE BLUES

Just a short note to say that I understand your decision to stop producing the subscriber floppy disk because you are trying to phase out the floppy disk version of *Amiga Format* (a good idea since almost everyone should by now have a CD-ROM drive).

However, I am disappointed that you have decided to stop printing *Backstage* (the subscriber newsletter). I have always thought that one of the benefits of being a subscriber (aside from the excellent discount and free delivery!) was reading your (or at one time Nick Veitch's) extended editorial/thought for the month. The loss of *Backstage* also means the loss of the subscriber exclusive competitions (another great benefit). Even if you have to get rid of the newsletter, then perhaps you could continue the subscriber competitions (sending each subscriber a membership number to be quoted when entering the competition to prevent cheating, perhaps). Maybe if *Backstage* was continued, subscribers like myself could contribute hardware tips, game hints, thoughts etc. This might also encourage new and old subscribers.

On a different note, all this QNX/Linux changeover stuff is pretty worrying. Could you confirm that there will be the possibility of a QNX and Linux OS for the new Amiga, or is QNX now to be ported to PC/Mac, as I was a little confused by the statements in *AF*127 (Duh!).

Ross Whiteford
Perthshire

Unfortunately, *Backstage's* presence, or lack of it, is all down to economics. We do want to give readers value for money and subscribers are a very important part of our readership, but while you say that the competitions are a bonus it's rare for us to get more than 100 entries, not many considering how many subscribers we do have. The QNX/Linux thing is confusing, but we hope to bring you all the news as and when we have it. Don't worry about it affecting the deadlines for the new machine. Amiga still plan to have the first ones out by Christmas...

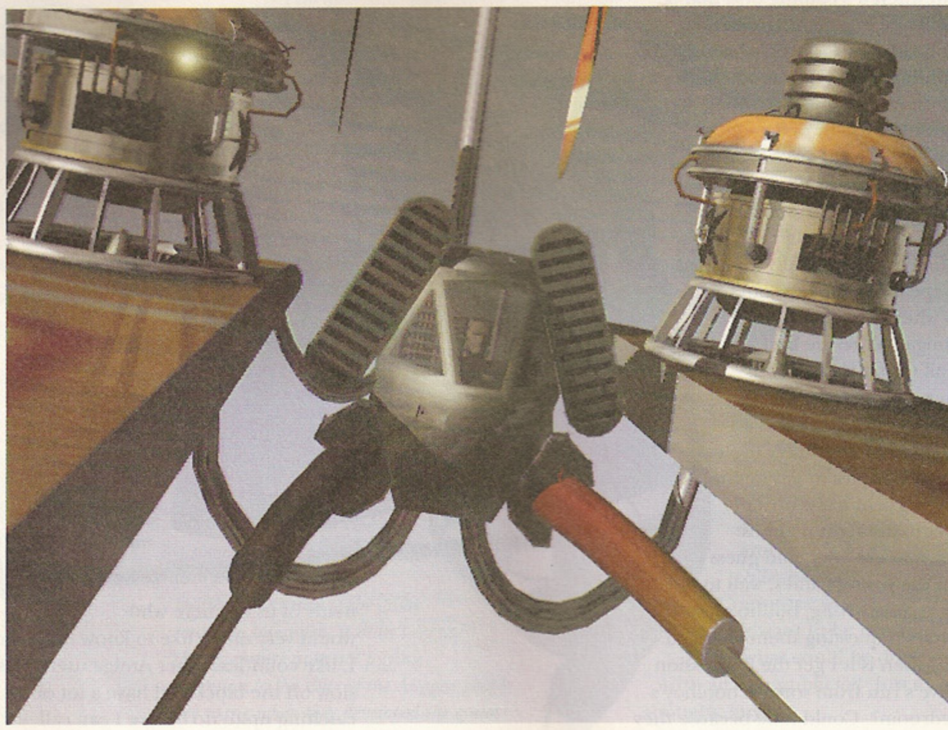
The Gallery

ON THIS MONTH'S CD

AFCD44:-ReaderStuff-/-Gallery-

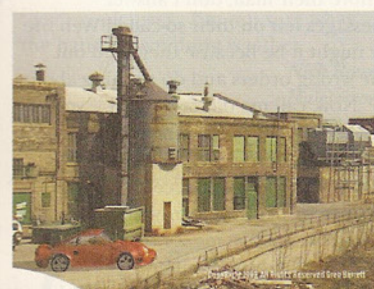
After last month's spectacular efforts, **Ben Vost** is more keen than ever to take a look at your artwork.

Sponsored by Amiga £50 WINNER!





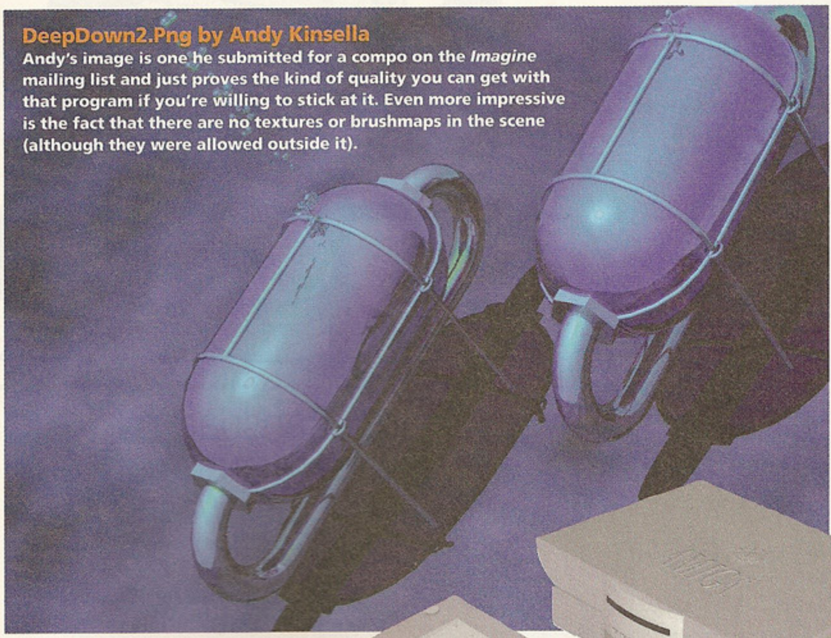






CoastalInvasion.IFF, Downpour.IFF, HornetCloseup.IFF, NickySci-Fi.IFF, Porsche Industrial.IFF all by Greg Barrett

Greg has been very busy tweaking the most from *Lightwave* in order to do these fine compositions. The lighting is pretty good, but the CG elements still look too clear and out of place. Greg, it may be worth your while trying the film grain plug-in, or composing afterwards using something like *ImageFX* to marry the two halves better. Otherwise, though, beautiful renders. We look forward to seeing a completely composited animation soon...



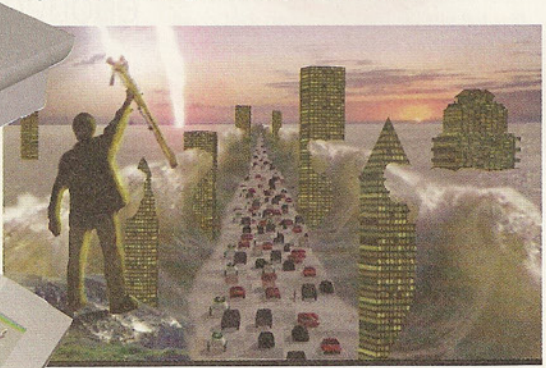
DeepDown2.Png by Andy Kinsella
Andy's image is one he submitted for a compo on the *Imagine* mailing list and just proves the kind of quality you can get with that program if you're willing to stick at it. Even more impressive is the fact that there are no textures or brushmaps in the scene (although they were allowed outside it).



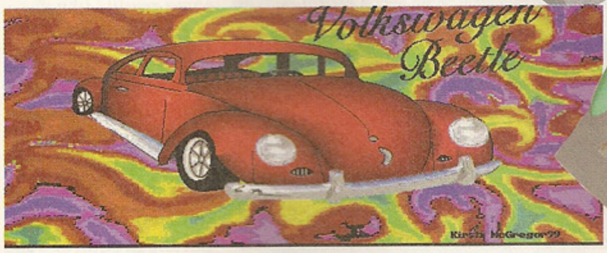
Colin_Baker by Colin Baker
I'm sure this image probably isn't called that, but that's what Colin decided to name it when he sent it in to us, so... This picture is the design for a hospital radio station.



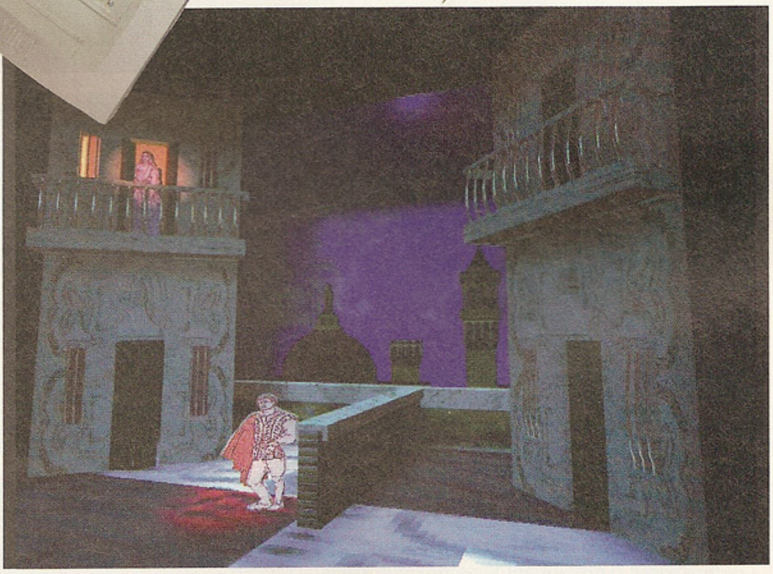
HANDHELD.TIF, KYOTOPIC.JPG by Neil Corbett
Neil did these models fairly swiftly after the first pictures were released, and we're pleased he sent them in to us. They are both created in *Cinema4D*, and Neil says he'll make Cinema objects of all the other sketches soon.



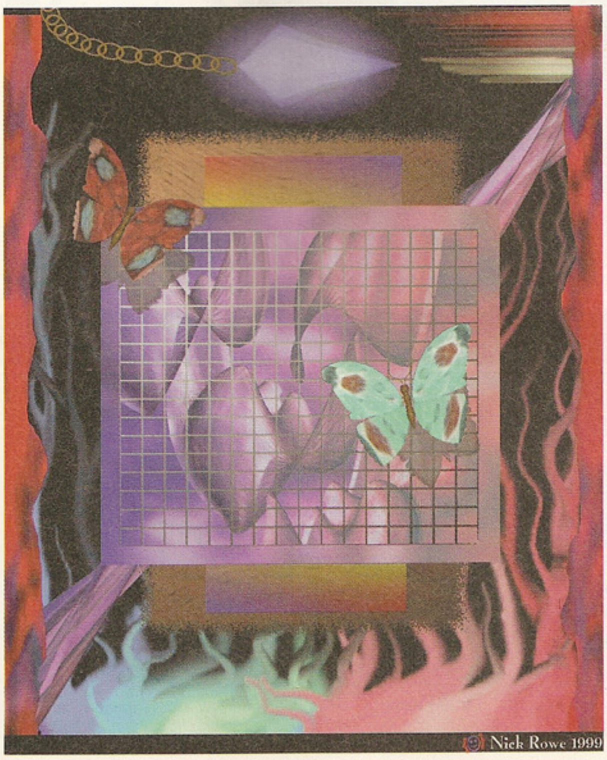
Redsea.jpg by Gary Robinson
Gary's little masterpiece is a real multimedia event. He grabbed the waves using *VLab Motion*, built the cars and buildings with *Imagine* and composited the whole lot in *ImageFX*, with added lightning.



Beetle.iff by Kirsti McGregor
A nice psychedelic VW from Kirsti who's only 14. The back end's a bit stretched but other than that, it's a nice colourful drawing.



VERONA.JPG by Mark DeWolf
A lovely surreal image that seems to blend 2D and 3D in a Paddington Bear kind of stylee. Shame Mark didn't include a readme for the CD so he could tell us how it was made. Even so, it's nice to see input from people outside of the UK – Mark's from Singapore.



Destruction.JPG by Nick Rowe
Nick's sent in a huge composition, but it doesn't hang together very well, looking like several disparate pictures slung together. Still it looks very nice when seen as a whole and Nick couldn't even view the finished picture on his own machine!

CONTRIBUTIONS

If you'd like to enter your work (and it should be only your work!) for the Gallery section on the CD and the pages in *Amiga Format*, read the Reader Submissions advice on the CD (you can find it in various places) or simply make use of the form from the CD pages of this magazine.



Serious AMIGA FORMAT disk



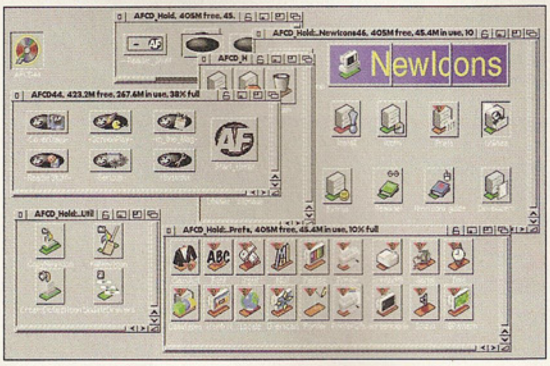
Errol Madoo brings you a groovy transparent clock, the complete ***NewIcons 4.6*** package, a menu driven means of rebooting your Amiga and if that wasn't enough we've thrown in even more!

NewIcons 4.6

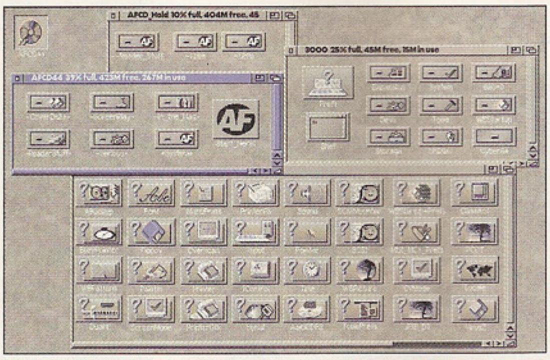
Commodore's first step towards ReTargetable Graphics was seen with the release of Workbench 3. Although capable of displaying a 256 colour Workbench screen its icons were limited to only eight colours. Due to this limitation, Commodore's RTG system soon saw developers pursuing the ideal fix to the problem. One of the most famous of the alternative systems was the MagicWB icon set along with its resulting additions which, in a nutshell, used a palette of 8 custom colours and some sophisticated dithering techniques to produce icons with more perceived colours. The MagicWB icon set coupled with the GUI control system MUI are, in my opinion, what the Amiga is all about, giving it a distinctive look, feel and unrivalled configurability.

> The basic idea behind NewIcons is that a user shouldn't need a fixed colour scheme for icons.

The other RTG icon system is NewIcons, which in its simplest form is a system patch, and in many ways this was and is the best system. The basic idea behind NewIcons is that a user shouldn't need a fixed colour scheme for icons. NewIcons will automatically remap icon images using the colours available on the Workbench screen. A specific palette is therefore not required but it is suggested to obtain best results. If you use a Workbench with more than 64 colours, you can ignore the palette completely. NewIcons solves most of the icon problems found on MagicWB based systems, for example; it allows icons with upto 256 colours and it allows for palette independent icons making them appear correctly regardless of what default palette is used. It is, some would say, very PC looking in appearance but I guess that NewIcons is an acquired taste, some people like it and some don't.



NewIcons in all its glory. Do you prefer this over the standard WB or MagicWB icons?

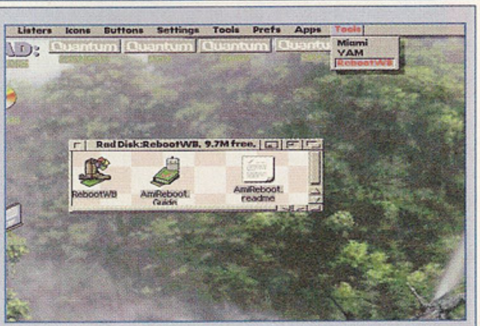


Here's a similar screen showing you MagicWB icons. The choice is yours...

Installation is simple and if you have a previous version of NewIcons installed it will recognise this and just install the updated files. The full package requires 300k of free space on your hard drive. NewIcons comes with a complete replacement icon set for all the standard Workbench icons along with many additional icons and should you need more you can find many NewIcon collections on the Aminet or from your local PD library.

REBOOTWB

Ami-RebootWB is a handy little commodity that quite simply adds a valuable RebootWB command into your Workbench's tools menu. You just double click on it's icon and take a sneeky peek in your Workbench's Tools menu where you will find a new option called, strangly enough "RebootWB". Selecting this option will bring up a little requester informing you that all your unsaved data and the data in RAM: will be lost if you continue and asking you if you would like to proceed. Cicking on "No" will cancel the requester and return you to Workbench and clicking "Yes" will obviously reboot your Amiga. You can even plonk the ReBootWB icon in your WBStartup drawer if you decide that you want to use it on a constant basis.



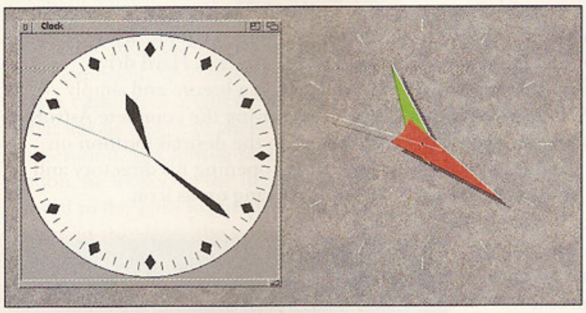
RebootWB – it does exactly what it says on the tin

BackClock

Workbench clocks are nothing new, there are probably hundreds available for your Amiga, each looking slightly different and perhaps featuring some unique extra feature. Personally I have never really bothered with a replacement WBClock. In fact, I have never really bothered with using a clock at all, simply because I find it easier to tilt my left forearm a little and look at my watch. If I were to be brutally honest, I guess that the truth of the matter is that I have never found a replacement clock that is cool enough to deserve a place on my workbench screen. That was until I came across BackClock, a great little replacement for the boring looking clock found in Workbench's Utilities drawer.

So, what made Backclock stand out from the crowd? The simple answer is its transparency. Yes folks! BackClock is totally transparent. It just sits on your Workbench screen doing its funky stuff, smug in the knowledge that it looks really cool. Featurewise, BackClock isn't very well endowed, it tells the time and that's about it. There's no date, no countdown to the millennium, no alarm, it doesn't even make the coffee but, who cares? It just sits on your Workbench, in scalable, windowless and borderless bliss looking really really cooool!

BackClock should run on any Amiga with OS 3.0 or above and requires that some standard libraries are available in your LIBS: directory. Two other libraries (notifyintuition.library and rtracker.library) are also required but don't worry, they are included in the archive



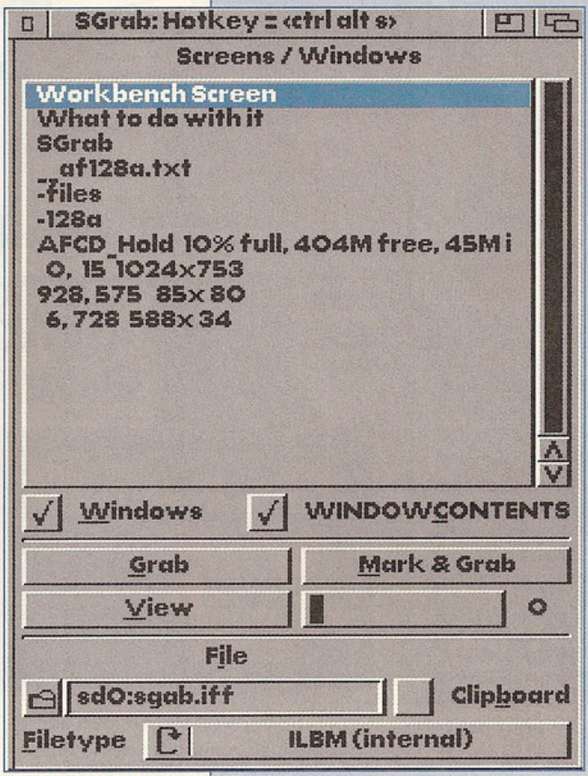
If you are looking for a cool clock replacement, take a look at BackClock.

SGRAB

If you have an Amiga with at least a 68020 processor running Workbench 3 or above and need to grab Workbench based screens or individual windows, SGrab is the utility for you. It allows you to save screens or windows as ILBM or JPEG files and supports all display modes provided by Picasso96, CyberGFX and/or by the native Amiga chipsets. SGrab requires no weird libraries and its installation is simply a matter of copying the SGrab icon to your desired location (unless you want to install the foreign catalog files).

Once in place, double-clicking on the SGrab icon presents you with the main interface window containing all the controls needed for you to start grabbing. At the top of the interface window is a scrollable list containing all the workbench screens and windows that are currently available and at the bottom of the window are all the gadgets for the program's various options and settings. If you have the notifyintuition.library, by H.W.Schober, installed on your system (supplied with BackClock on this coverdisk) the list will be automatically updated each time a window/screen is opened or closed.

The main gadgets include "Grab" which initiates the grabbing process (after you have given your grab a filename) and "Mark & Grab" that pops the selected screen to the front and allows you to select the area that you want to grab. SGrab also gives you the ability to set up a time delay allowing you to set the desired screen up with all windows in the right position before the screen is grabbed. By default, SGrab allows you to save your grabbed images in IFF and JPeg formats, but you will need to have the Jpeg datatype installed on your system in order to save in Jpeg format. SGrab also includes a whole host of additional features including clipboard viewing, datatype support and a fully featured Arexx port.



SGrab allow you to grab most Workbench based screens and windows.

WBBUMP

I recently featured an earlier version of WBBump on an Amiga Format Subscriber's disk and was so impressed with what it did that I thought that I would treat you guys to the latest version. Basically, WBBump is a tool that will make your Workbench screen the envy of your PC owning friends. Describing what WBBump does could be summed up as a classic case of a picture is worth a thousand words but in this case a moving picture is worth a lot more than a thousand.

Broadly speaking, WBBump puts any greyscale image or logo on your Workbench screen (or any screen of your choosing) and converts it to a bumpmap. Your mouse pointer, although not physically changed in any way, is tranformed into the bumpmap's light source and as you move your mouse pointer around the screen the light source is changed on your image producing the effect of movement. Although this sounds pretty boring (not helped by my explanation) it's really a case of trying it out to see for yourself.

Installation is pretty straight forward and just involves copying the main program directory to your hard drive, adding an assign to your user-startup file, putting one of the sample projects into your WBStartup drawer and then rebooting, perhaps using RebootWB from this coverdisk.

WBBump needs Workbench 3 or above, a minimum of a 68020 processor and preferably a Cybergraphics card. It should work on an Amiga equipped with a Picasso card and this, the latest release also features AGA, ECS and OCS support so nobody should be left out. You should also make sure that your Workbench is running in backdrop mode (so doesn't have a window around it). As mentioned earlier, WBBump can be configured to run on any screen of your choosing and this, along with most of the program's configuration is done via the icon's tooltypes.



It's a little hard to take a screenshot of an animation but this should give you a rough idea of what WBBump does.

Games disk





AMIGA FORMAT

Errol Madoo presents this month's games disk which features the funky ***AstroKid***, a battle against ***Evil Insects*** and a groovy ***Tetris*** variant called ***Rockslide***.

AstroKid



How on earth does he expect to make it thorugh five levels with eyes like that? That's why he needs your help!



Astrokid is an innovative and clever mix of several different gametypes, it's a sort of mix between the legendary *Space Harrier* and *Asteroids* with a few puzzles thrown in for good measure. It features some really groovy graphics, addictive gameplay and some funky in-game music scores.

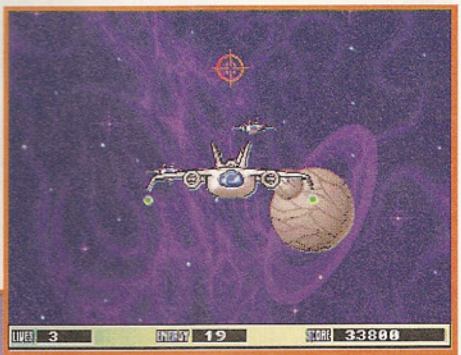
In level one the aim is to destroy as many oncoming flying objects as possible using your cross-hairs. These objects include waves of comets, asteroids, different alien ships and even *Star Wars* looking tie-fighters. On this level particular attention must be paid to objects flying directly towards you because if you are hit you lose energy which can obviously be replenished when you destroy them.

> **Astrokid features some really groovy grapics, addictive gameplay and funky in-game music**

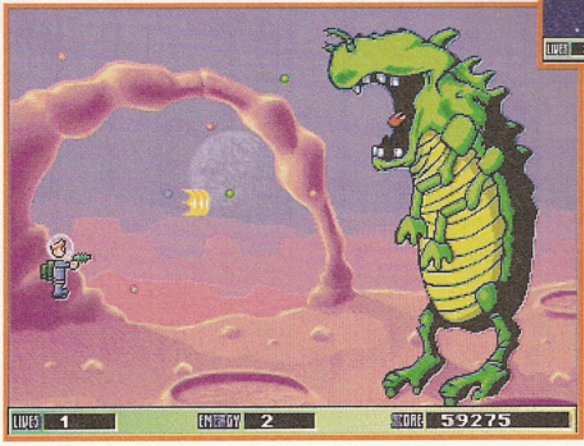
Level two is played on a static screen and your character has gained a space suit and jetpack (he has crash landed on planet Funk). He faces a huge green monster which dominates the right hand side of the screen. This monster obviously isn't very happy with you trying to destroy him and spends most of his time spitting energy balls at you which you need to avoid. When the monster is just about to die, he launchs an alien creature at you from its stomach in a last ditch attempt to kill you. Defeat this creature and you will proceed to the next level.

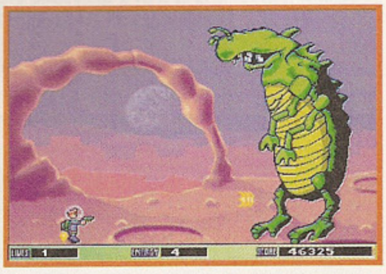
A grid of thirty six squares greets you on level 3. The aim here is to find 12 matching symbol pairs contained within the thirty six squares, this has to be completed against the clock. In level four, you have to negotiate through very fast sideward scrolling caves collecting stars on the way. You need to collect 10 stars in total, to repair your ship, and the scrolling continues until you have completed this task or die. Level five, the last level, sees you back at your ship and it's repair time. You are faced with a 5x5 grid of sliding squares and you must slide the sqares around to complete the picture in order to repair your ship. Once done, you have completed the game. You can complete the game can't you?

AstroKid also features a options screen containing quite a good array of options including 10 difficulty settings, location of the onscreen scoreboard, toggles for background music and intermediate chapter information screens and, would you believe, even a option to set the number of lives that you can start with. For some reason the game doesn't include any in-game sound effects just background music tunes. The game is completely controlled with the joystick and should work on all Amigas. Hard drive installation is a breeze and simply involves copying the complete AstroKid directory to the desired location on your drive, opening it's directory and double clicking on its icon.



Eeek! It's coming straight at me. Shoot it!



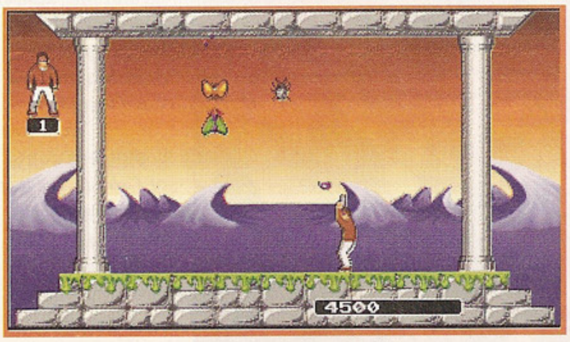


Take that you horrid green beasty, you. And don't even think about releasing stomach-dwelling aliens at me. I'm too hard for that.

Evil Insects

The story starts sometime in the near future when a small Asian country starts testing their nuclear weapons. Due to strong winds, the nuclear fall-out was spread over large parts of the world. The effect on human life was minimal, but the insect world saw the brunt of the fall-out and insects started mutating into killer EVIL INSECTS with only one thing in mind: the detruction of human life. Humans were advised to stay indoors and the armies of the world were almost powerless to stop the spread of the mutant insects. Neither conventional or nuclear weapons were of any use in mankind's struggle to destroy the insects.

While all human life was facing its untimely demise, you discover an ancient Greek book which contains the story of the Evil Insects' invasion of ancient Greece. How could this be? There were no nuclear weapons in ancient Greece. How did it start? As you flip through the pages of the dusty book, the story of the last invasion of the Evil Insects unfolds. It had all started with a spell from an evil Magician, who was intent on killing all human life. Realising that he had made a grave error and that a solitary life on earth wasn't for him, he cast another spell to put an end to the invasion. But things didn't go as he expected, he had used all his power casting his original evil spell. What was he to do? In sheer desperation, and having no other option, he looked to the heavens and prayed to the gods for help. A bolt of lightning shot from the skies towards him... there was a puff of smoke... and a thundering voice bellowed... "Read the flippin' manual!". The magician looked down and in the smoking remains of his cauldron was a manual. It revealed that the only way to destroy the Evil Insects was to build a temple at a specific location. The ceiling of the temple was to be made from layers of magic stones. If such a magic stone would fall on an insect, the insect would be instantly destroyed.



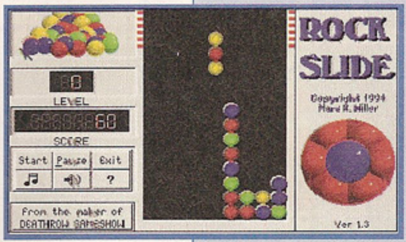
Killing insects with magic rocks is nearly as much fun as using a magnifying glass on a hot day.

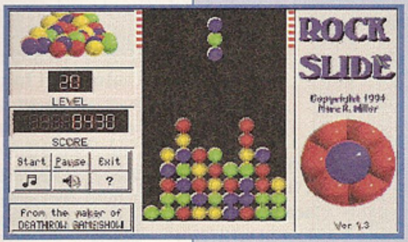
ROCKSLIDE

Tetris **has become a huge success in the computer gaming world. Needing an almost unique combination of quick reflexes and thinking, players can quickly become addicted to the game in a constant struggle to get a little bit futher in the game. There have been many *Tetris* variants and *Rockslide* is one of these seemingly endless spin-offs. In "original" *Tetris* game the player must arrange (rotate) coloured pieces into lines as they appear on the screen and float towards the opposite side. Once a line has been completed, it drops off the screen and the saga continues. The object of the game is to complete as many lines as possible. Although this sounds relatively easy and perhaps even boring, it's surprising how addictive (and frustrating) *Tetris* actually is.**

In *Rockslide* the *Tetris*-style shaped colour pieces have been replaced with with stacks of 3 coloured spheres (rocks) which gently fall down the screen. The object of the game is to create lines, either horizontal or vertical, of three of the same coloured rocks. This is accomplished by a combination of left and right movement and rotating the sequence of coloured rocks as they fall down the screen. When you have created a line of three of the same colour, the three matching rocks vanish, you get some points, and all the rocks above the removed rocks drop into their place. This sequence of events continues until you have either filled up the play area, given up or pulled all your hair out.

The left, right and down movements of the decending rocks, is controlled with the keyboard using either the cursor keys or arrow keys on the numeric keypad and the colour sequence of the rocks is cycled using the spacebar. The only other keyboard key used is the "P" key with pauses the game. The left hand side of the screen also features buttons for starting a new game, quitting, toggling the music and sound effects and the help screen. *Rockslide* should work on all Amigas.





There's plenty of *Tetris*-style fun and frustration to be had in *Rockslide*.

As you flip to the last pages of the book, you find a secret map of where the temple was located and a description of how to build a device to lure the insects to the temple. Armed with your self-made gun, the map and the device you try to find your way to the temple. As you arrive, you turn on the device and you wait for the insects to appear. Your task is clear, you must rid the world of the EVIL INSECTS... your task begins...

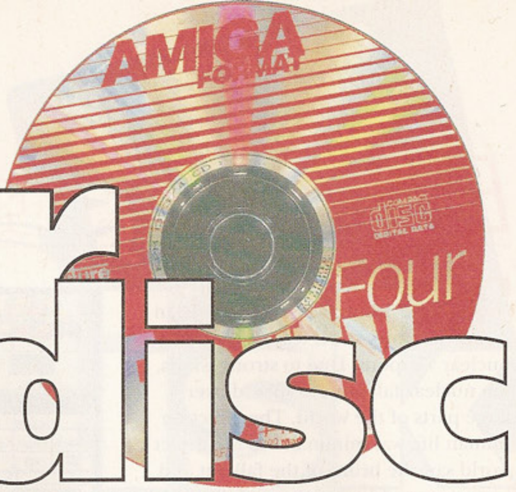
The objective of the game is to kill the Evil Insects using your gun. You control the main character with the joystick in port 1. You can move the joystick LEFT and RIGHT to run. To shoot your gun you press FIRE. You cannot shoot the insects directly, you have to shoot at the ceiling, which in turn causes a magic stone to fall, hopefully killing an insect. This is a little tricky at first, but you'll soon get the hang of it. Then comes a twist. You can only shoot when there is no magic stone on the screen. This means that if you just fired your gun, you'll have to wait until the magic stone disappears from the screen before you can fire again. Then comes another twist. A magic stone will only fall from the ceiling if you aimed at the ceiling in the first place.

Every level contains dangerous insects that drop projectiles. When you are hit by these projectiles you lose a life. Each of these projectiles will have its own randomly determined speed, so watch out. In the later levels, the insects will move faster and drop more projectiles. When one of your magic stones hits an enemy, the enemy dies. You will be awarded some points depending on what the enemy looked like. Sometimes a dead insect drops a power-up which are worth points as well as as giving extra functions. The white one awards you with an extra life, a green one gives you extra speed and a blue one makes the stones fall faster. Each time you die, you will lose a life, but you will also lose any extra speed you had. When the game is over or you have completed the game, and if your score is good enough, you will be given a place in the highscore table. During the game you can use the "Esc" key to return to the intro screen, where you can press "Esc" again to return to Workbench and the "p" key to pause the game. The game has 50 levels and should work on all AGA Amigas

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AMIGA FORMAT (insert name of disk) • TIB PLC • UNIT 5 • TRIANGLE BUSINESS PARK • PENTREBACH •MERTHYR TYDFIL • CF48 4YB
If there is a manufacturing error then the stamps will be returned with a replacement disk.

Cover disc





AMIGA FORMAT

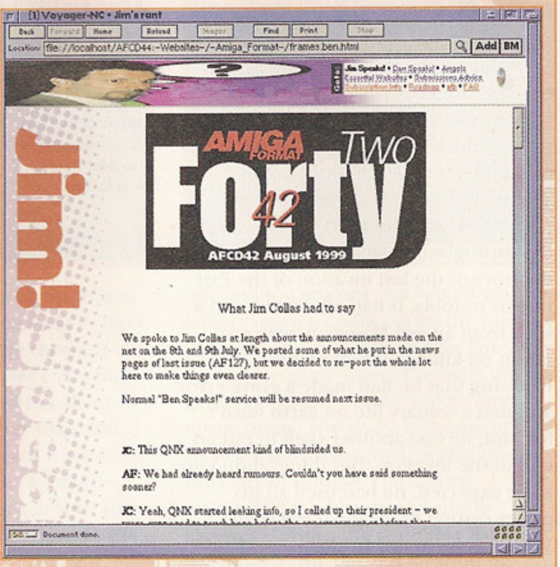
How do we do it? Yet another CD crammed full of software. Richard Drummond is your guide.

WHAT'S NEW

Ben and I have been usurped in the HTML section of this issue's CD. Not that we mind. We've decided to use this space to print the full interviews that Ben conducted with Jim Collas and Dan Dodge last month (which we could not cram into the news section). Read it all and make up your own mind about just who is building the true successor to the current Amiga. Our normal service will be resuming next issue.

Other changes this issue include an update to *AFCD*Find especially for users of Scalos, the Workbench replacement. Any drawers which result from an *AFCD*Find query may be opened directly on your Scalos desktop simply by clicking the result with the your mouse.

Oh, and by the way, we know that the *AFCD* logo on the HTML pages is actually for the wrong CD number, so please don't bother writing in to tell us. We spotted it only just to late to do anything about it.



Full interviews with Messrs. Collas and Dodge.

IMPERATOR

-ScreenPlay-/Commercial/IMPERATOR_DUK

Imperator is a strategy war game set in imperial Rome. It was released earlier this year in French only, but has now made the jump across the Channel with an English translation. The game is divided into two parts: the first part casts you in the role of Caesar with the task of ensuring the prosperity of the Empire; in the other you play a general and must guide your troops in battle.

This demo features only the battle section of *Imperator*. You may select to be one of a list of commanders (most of whom have rather Pythonesque names), the type of Legion you wish to lead and the terrain for engagement. Your troops may be made up of different units including infantry, archers and cavalry. You may even be equipped with catapults – a great tool for routing those barbarian hordes.

The game is turn-based: you simply issue orders to your troops, click accept and watch them go.

Imperator looks great and is loads of fun. Look forward to a full review next issue.





He has a wife, you know. Incontentia Buttox...

PPAINT 7.1B UPDATE

-Serious-/Commercial/PPaint7_Update
-Serious-/Commercial/PP71B _68020

PPaint is a program that should need no introduction: it is the king of bitmapped paint packages. This is an update for owners of the full release of either *PPaint7.0* or *7.1* and mainly fixes some bugs that occurs when using it with the chunky screenmodes of a graphics card. Also included is a 68020-optimized version of the main *PPaint* executable which should provide better performance on machines equipped with an 020 or better.

GOLDED6

-Serious-/Commercial/GoldEd_Demo

A good text editor is a must for anyone that uses a computer seriously, whether it's for knocking together source code, writing e-mail, or just plain word-bashing. The Amiga is shipped with two editors, *Ed* and *MicroEmacs* – but both these have seen better days. So, what's the alternative?

Well, you could get a copy of *GoldED*. *GoldED* started off life as shareware but is now, quite deservedly, a



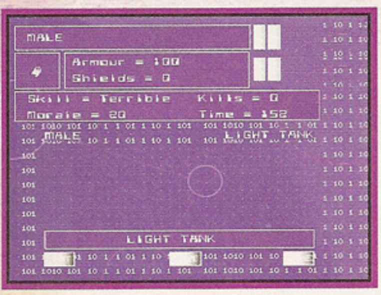
Pixel prowess with the latest update to *PPaint*.

Your Stuff!

Sponsored by Amiga £50 WINNER!

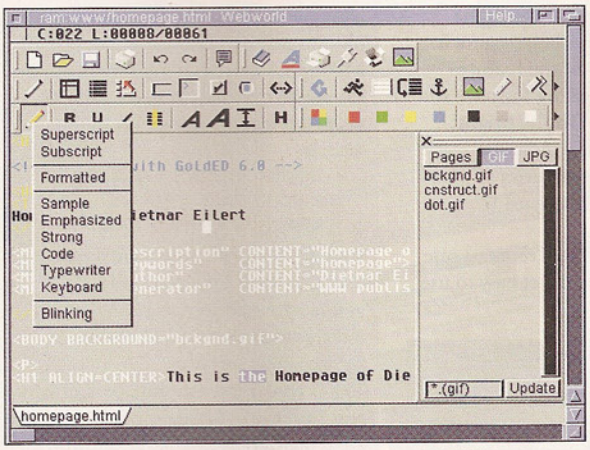
For the last few issues we have been receiving a steady stream of your contributions. Alas, not so for this issue. Whether it's because of the summer weather or just plain laziness, but readers' contributions for this coverdisc are decidedly thin on the ground. Nerver mind. It's quality not quantity, after all.

Speaking of quality, this month's winner of fifty notes for the best entry is Richard Sweeney. Richard has sent us his game Tanx Squadron, a turn-based strategy game in the mould of Laser Squad. The objective of the game is control your ten vehicles and destroy the alien invasion force currently attacking the earth. Tanx is an accomplished, well-produced game and Richard more than merits this issue's prize. Well done that man!





Tanx Squadron: this issue's winner of the coveted AF reader prize.



commercial product: it is an incredibly powerful text processor. Its graphical interface takes a bit of getting used to and looks too much like Windows for comfort, but for speed and features it can't be beaten.

GoldED6's WebWorld add-on in action.

One of the great aspects of *GoldED* is its configurability. It even has a built-in filetyping mechanism. This allows you to simultaneously have different settings for each type of file opened. *GoldED* is shipped with add-ons which make use of this feature and provide environments tailored for specific tasks, such as editing C source code or creating web pages. Other add-ons include a spell-checker and thesaurus and a *MineSweeper* game.

This demo version of *GoldED* is restricted and will not allow the saving or printing of documents.

VOYAGER 3 PREVIEW

-Serious-/Comms/WWW/Voyager-30-PR1

This is the first preview of the new *Voyager*^{3} and was the release that was being demoed at the recent World of Amiga show. Improvements from the previous version of *Voyager* are too numerous to list, but the two features that everybody will be interested in are the JavaScript support and the ShockWave plug-in. Other interesting advances include *Netscape*-like tear-off button strips and integration of Vapor's new *Contact Manager* for bookmarking.

Another new addition with *Voyager*^{3} is the opening of the V^3 Portal website. This is a bit empty at the moment, consisting only of news about V^3 updates, but one amusing feature, tucked away in the corner of the page, is the *Collas-O-Matic.* It reads 'And today's AmigaNG OS is:' and prints a the name of a different operating system every time you download the page. Nice touch!

A keyfile from a registered copy of *Voyager* is required for this preview to work. It was also supposed to function with the keyfile from the *NetConnect2* package but, in fact, does not. A new preview will be available shortly for *NC2* users.



The new V^3 portal site. And today's AmigaNG OS is CP/M...

It must be remembered that this is still only a preview and is quite likely to have bugs and stability issues. For more information read the Browsers Preview article on pages 44-45.

Continued overleaf ➡

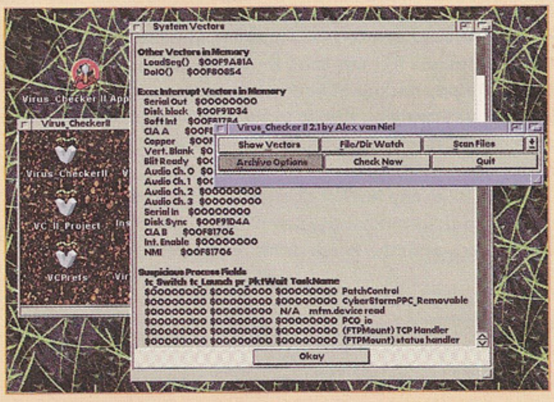
VIRUS CHECKER II 2.1

-Serious-/Virus/Virus_CheckerII

Amiga users tend to be rather complacent about Viruses these days. When the rest of the world was suffering from Melissa we looked on smugly, safe in the knowledge that it could not harm us. But rogue programs are still being created on our platform as the recent spate of Trojan Horses uploaded to the Aminet proves. Okay, these were relatively benign, simply bombarding an Amiga, Inc. mailbox with abusive emails, but we should bear in mind that viruses can be destructively disruptive.

A good and up-to-date anti-virus program is a vital tool for keeping your machine free from infection. Virus Checker II is just such a tool. When started up it interrogates the memory and system vectors for anything that looks suspect and it can examine the bootblocks of any floppy disks that you insert. It can also scan any files you tell it to, even inside crunched files and archives, and can watch specific files and warn you if any task tries to tinker with them.

To get full protection make sure you register Virus Checker and remember that no anti-virus program is fool-proof.



VCII: it kills all known viruses dead.

AUDIO TRACKS

As well as all this fantastic software, we've managed to shoehorn two CD audio tracks onto this month's coverdisc. The first of these is from a man you all know, Tony Horgan, and ties in with his Synth Studies tutorial in this issue. The other track is from the game Operation: Counterstrike which is currently being developed by BLUE BLACK Solution. This game is set to be another Command & Conquer clone.



Operation: Counterstrike is looking good.

NEWSROG 1.7B

-Serious-/Commercial/NewsRog_Demo

The Internet is a jungle, Usenet especially so. To survive on the newgroups you need to be packing the right equipment: *NewsRog*.

NewsRog is quite simply the most powerful news client on the Amiga or any other platform. It boasts more features than I can do justice to in the available space and yet has a clear and usable interface. One its best features is its multi-threaded design which allows you to carry on reading and replying to posts even when the program is performing transfers to a server. *NewsRog* also has powerful MIME support and can display images inline in up to 24-bit on supported screens.

The supplied demo of *NewRog* is restricted and will only allow you to subscribe to two groups. It will also not permit the saving of preferences.



***NewsRog* might be a silly name, but it's a very serious package.**

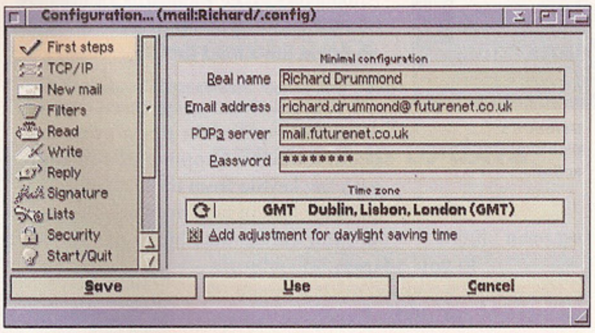
YAM 2.0

-Serious-/Comms/Other/YAM2.0

After seven preview releases there is at last a full release of *YAM2.0*, the Amiga's most popular e-mail client. All previous *YAM2.0* versions were essentially public beta versions, but this has not stopped it developing a devoted following. Despite its beta status, later previews proved very reliable, overcoming its earlier reputation for flakiness.

Users who have been progressing through the beta releases of *YAM2.0* may in fact be disappointed with the final – it doesn't look or behave much differently. And many of the features that users have been asking for have still not been introduced. On the bright side, this is the first time binaries optimized for higher 68k series CPUs have been shipped with the *YAM* distribution.

Love it or hate it, *YAM* remains one of the most powerful and yet easy to use mailers for the Amiga.



Not that you'd notice, but this is the final release of *YAM2.0*.

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If your *AFCD* is defective, please return it to the address below. Please make sure you have followed our installation procedures correctly to ensure that there is no physical problem. Please send us the *AFCD* along with a description of the fault (not forgetting your name and address). A new working version should be returned to you within 28 days. The return address for faulty discs is:

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Your *AFCD* should only need replacing if the CD itself cannot be read. If you're experiencing problems with an individual application, phone our technical support line.

This is open between the hours of 2pm and 5pm every Tuesday.

Tel: 01225 442244 Fax: 01225 732341

Email: amformat@futurenet.co.uk

(Please remember to put "Coverdisc" in the subject line.)

Please note that the helpline staff provide assistance with technical problems directly related to the CD and cannot provide training on the software or hardware in general.

We want your work!

You can either send it to us on floppies, Zip disks or CDs (we do take other media formats too). If you are going to send us a multiple floppy backup of your work, please use the version of *ABackup* we supply on the CD in the +System+/Tools/Disk_Tools drawer. We'll return any Zips you send us, so don't worry about getting your disks back.

If you have any further queries about how to send your software in then consult the Submissions Advice on the CD (in Ben_Speaks!, or in the ReaderStuff or +System+/Info drawers).

Your signature: ....

Files you send in this month will probably appear on *AFCD46 – Amiga Format* issue 130, December.

Please tell us:

Your name: ....

Your address: ....

....

Your postcode: ....

A contact number or email address: ....

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A500+ 2 MB includes joystick, mouse, workbench etc. Also A600 still in box. Various boxed games. Senisble prices ☎ Steve 01536 741335 after 6pm.

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Memory card for A1200 4 MB+ Also a CD-ROM drive for A1200. Fair price paid. ☎ 01536 741335 evenings or weekends.

Does anyone have a copy of Apidya, Project X or Speedball 2 that they would part with? ☎ Leo Hancock 01963 350397.

Seek and Destroy, Kingpin, Mortal Kombat 1&2, Paperboy, either Alien Breed, TKG. All on floppy please. ☎ 01202 526330 (leave message please).

Amos Professional original disk set or part of considered. ☎ Bill 01473 404572 any day after 11am.

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A4000 '040 Accelerator board revision 3.1 or above. Also Zorro II boards required. ☎ 01543 258079

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Anybody with an A4000 desktop upgrading to PPC? I need a CPU board, '040 or '060, for my Amiga. I can pay from £50 to £75. Email paularnold@free4all.co.uk or ☎ 01903 739069 after 6pm and ask for Paul.

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I'm looking for Final Writer, higher version than Final Writer Lite. As high as possible, reasonable price please as I am disabled and unable to work. I have an A1200. ☎ 0161 8655537.

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PERSONAL

Also see the AmigaAngels document on our CD.

Any Amiga Magazines or diskmags require another contributor? Knowledge of A1200 and other Amigas. Will work for free. Article previously published in *Amiga Format* ☎ Ross Whiteford 01738 850732

Looking for email pals in any area. Just got connected to the Internet so looking for contacts. Email Duncan McGregor at: dkm@free4all.co.uk.

Do you want Worms DC levels, but don't have a CD-ROM? Simply send a disk and 50p to: Mick Galvin, 84 St Cuthbert's Cres, Albrighton, Nr Wolverhampton WV7 3HW

Amiga contacts wanted in the Edinburgh area contact Gordon Lawrie, 21 Wilson Terrace Broxburn EH52 6EP

World of Amiga Issue 4 is now available and includes in depth reports on the WoA99 show, The Amiga Tech Brief, The Amiga Linux announcement and more. Download now from the new website: http://web.ukonline.co.uk/trogsoft/woa

BBSes

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Entertainment BBS, Wigan, online 24 hours. ☎ 01942 221375.

Frost Free BBS, ☎ 01484 327196 (Slaithewaite, W. Yorks).

The Forum! BBS online 24 hours, Kilmarnock, Scotland. Over 35 members, 2,000+ files available, including games, pics, utils, etc. Sysop: Jamie Maguire. Run by a software development student. ☎ 01563 540863. 36K.

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Moonlight BBS, Bedford, online 6pm-8am, 24 hours at weekends, ☎ 01234 212752. Sysop: John Marchant. Email gnome@enterprise.net. Official Transamiga Support BBS, unlimited downloads, very friendly sysop with excellent Amiga knowledge. Aminet online. Run by an experienced Amiga programmer who will help you out for free.

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USER GROUPS

User group ads will be printed for three issues.

NPAUG is a new Amiga user group based on the net. We offer a free monthly magazine and tech support over the web. If you're interested in joining, visit our website: http://members.aol.com:/npaug/home.html or email me: npaug@aol.com.

Are you Welsh, live in Wales or love Wales? Then join Cymru Amiga User Group. Visit us on http://bounce.to/caug or email dark.lords@deathsdoor.com to join.

Amiga Support Association. We offer help and advice to Classic Amiga enthusiasts. Monthly meets to be arranged for a Southampton Venue. Please contact Phil for more information: Snood@UKOnline.co.uk or ☎ 01703 489701.

United Amiga User Group, est. 1986. Technical support, magazine, free coverdisc, Internet book search, PD library, digitising and scanning. Send SAE to Martyn Sherwood, 13 Rodney Close, Rugby, CV22 7HJ.

Pennine Amiga Club. Free worldwide helpline supporting all models. Non-profit making club. Not a business. We help with free advice: ☎ 01535 211230

West Lancs User Group. Sundays, 1pm-4pm at St. Thomas School Hall, Highgate Rd, Upholland. ☎ 01695 623865, email ralph@twiss.u-net.com. Help and advice, novices and experts welcome.

Is there anybody in the Northamptonshire area interested in starting up a new user group? Please contact me: ☎ 01536 724309 or email nsthomas@ukonline.co.uk.

Workbench, the Manchester Amiga user group. We meet on the first Thursday of each month at 7:00pm and offer general Amiga chat. ☎ 0161 839 8970. Also, check out our website at: www.workbench.freeserve.co.uk. Alternatively, email: mail@workbench.freeserve.co.uk.

Felbrigg Amiga Group meets weekly near Cromer. We are a group for novice and expert users. For more info ☎ 01263 511705 or 824382

South West Amiga Group, (SWAG) meets every 1st Thursday of the month, 8:30pm at the Lamb & Flag (Harvesters), Cribbs Causeway, Bristol. SWAG intends to get Amiga users together, provide info and support, promote the Amiga and have a laugh. Contact Andy Mills: Swag@wharne.u-net.com

Want the latest reviews, news, interviews, articles? then visit the NEW AIO website at http://www.aio.co.uk, or visit #amos on ircnet, Saturday 9pm-midnight.

Northern Ireland user group welcomes new members. Emerald Amiga Users meets regularly in Strabane. Please contact Charles Barr ☎ 01504 884700

Medway and Maidstone Amiga collective. Meets monthly. Advice at all levels. Experts and beginners wanted. ☎ Dave 0961 809466. Support your local user groups!

Join a new email club for Klondike, a Reko Productions game. Cardset creators and cardset collectors, Amiga and PC. Email kevin@reko.karoo.co.uk (make friends).

NAC Nottingham Amiga Club New club starting soon. New/old users welcome! From A500 to A4000. Hints and tips on all software and games + hardware. ☎ Mark 0115 9566485 weekends only!

New Amiga sound and demo association seeks input, contacts and support to form a user group based around the Amiga music and demo scene. Interested? ☎ Daev 01243 864596 or 0961 985925.

Interested in Internet Relay Chat? Why not visit #Amigazone on Dalnet? We are a friendly bunch and meet at 10pm every day. Visit our website at: http://www.tsd-ltd.demon.co.uk.

The Amiga Free Helpline still needs helpers, so if you have a lot of knowledge about the Amiga, or just a little bit, but are willing to help – ☎ Terry on 01709 814296.

Lost soul seeking Amiga users in and around Southend and the south east Essex area. Just left school. ☎ Elliott Bird 01702 586621 or write: 1 Thorpe Hall Close, Thorpe Bay, Essex SS1 3SQ.

Power Amiga User Group based in Portsmouth for users of all ages and levels. We meet once a month on the last Saturday. We generally have Amigas of all sorts to look,listen and learn from. We have prize draws, tutorials and general discussions each meeting. ☎ Richard 01705 829541 or email richard@poweramiga.freeserve.co.uk or visit www.poweramiga.freeserve.co.uk

Continued overleaf ➡

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Computa Magic P/L, 75 Spence St. Keilor Park, Victoria, Australia, 3042. ☎ 03 9331 5600, fax 03 9331 5422, email commagic@alphalink.com.au.
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Desktop Utilities, Shop 13, Manuka Court, Manuka, Canberra. ACT. ☎ 02 6239 6658.

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Sells a range of hardware and software and also offers an Amiga repair service.

Point Design, Jürgen Schober, Muchargasse 35/1/4, A-8010 Graz. ☎ 0316 684809, fax 0316 684839, email office@pointdesign.com

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Generation Amiga, Rue de l' Eglise Saint Gilles, 22, 1060, Brussels. ☎ 2538 9360, fax 2538 9135. Visit http://get.to/genamiga, email genamiga@online.be

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An Amiga-oriented computer shop.

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☎ 0589 272940.
Used games, PD, disk drives, monitors.

HardPlay Software, 2 Broad Street, Newquay, Cornwall, TR7 2BU.
☎/fax 01637 850909.
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Vortex Services, 13-15 St. Michael's Square, Ashton Under Lyne, Lancs, OL6 6LF.

Swops, Corner of Bold Street, Fleetwood.
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A large selection of Amiga software, mice and joysticks. Buy and sell hardware and software at reasonable rates. Also do repairs and the staff are very helpful.

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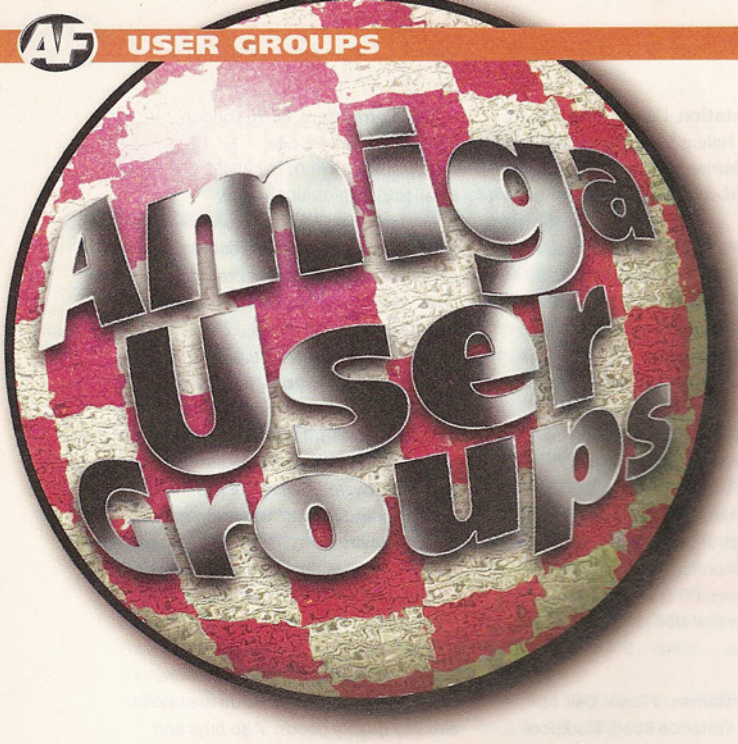
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Free!



at the WoA

Chris Livermore reports on how much user groups contributed to WoA.

This year's World of Amiga show saw a departure from many of the traditions associated with the show, such as the old venue, and the introduction of a whole host of new ideas aimed at improving the show for exhibitors and visitors alike. One of these new features was offering Amiga usergroups a free stand at the show to promote themselves. In my opinion this proved to be wonderfully successful. Approximately ten usergroups took stands at this year's show, including two from overseas. In addition, two giant maps of the UK were provided, highlighting exactly where each usergroup is within the UK, and offering those usergroups who were unable to attend the show a chance to still get their name across to the Amiga-owning public.

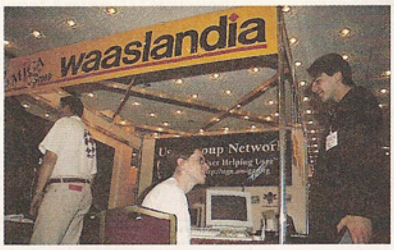
UNIQUE OFFERINGS

Each usergroup managed to bring something slightly different and unique to the show. Most had brought Amigas with them and were running various software, old and new, and many had experts in a particular field of Amiga use on hand to offer help and advice. Seal and Kickstart were selling their excellent Amiga magazines, *Clubbed* and *Amiga Insight* respectively, LAUG (Leicester Area Amiga Group) were demonstrating the lastest version of *Photogenics 4* on their stand, and Waaslandia from Belgium, BTX from Germany and the UGN (User Group Network) had the obligitory Webcams and IRC conferences broadcasting live throughout the entire show.

Originally, the lower ground floor had been set aside for usergroups. However, due to the high demand, some usergroups were accommodated on the first floor. This arrangement worked very well, as neither location was more than 10 metres from a bar so everyone was happy!

As well as exhibiting at the show, a number of the usergroups got involved in organising extra events associated with the show. Geoff Milnes and the guys from the Huddersfield Amiga Users group spent most of their show behind the "How-To" stand demonstrating how to turn a vanilla A1200 into a state-of-the-art beast of a tower. SWAG (South West Amiga Group) arranged an "Amiga through the Ages" display, featuring almost every machine from the A1000 up. We tried, unsuccesfully, to convince Petro to bring a Walker, although apparently it will be on display in a similar exhibiton in Cologne later this year. The show programme was left in the capable hands of SEAL (South East Essex Link), but due to a problem with the printers it never quite made it in time for the show.

> "Two giant maps of the UK were provided, highlighting exactly where each usergroup is within the UK"



Here's the Waaslandia stand. They came all the way from Belgium, you know. That's dedication.



Other usergroups organised activities including a Games area running a special WoA version of *T-ZerØ* with literally hundreds of prizes of *Quake* books given away throughout the show, and a copy of *T-ZerØ* for the best score each day. A Cybercafé failed to get on-line due to hardware problems , which is a real shame given the sheer amount of time and hardware put into it.

One of the real usergroup triumphs which probably went unnoticed by most show-goers was a loan of approximatly 20 Monitors and two 43" back projection TVs from Sony UK, arranged by Mark Spearing from SWAG. He even arranged for them to be shipped to the venue from Wales! The monitors were used throughout the show by usergroups and exhibitors alike, and even Amiga themselves asked to borrow a couple of them.

A GREAT SUCCESS

Every usergroup I spoke to thoroughly enjoyed the show and thought it had been a great success. They even remembered the whole point of being there and signed up new members! Both usergroup areas remained busy all the time the show was open, so it appears their presence was welcomed by the public as well.

Finally, I'd like to address a concern some people raised when the usergroups first got involved with this year's WoA: that it would lead to the show having a unprofessional feel to it. I hope that everyone who attended this year's show will agree that that concern was completely unfounded. Usergroups are an important part of the Amiga scene, and as such I believe that they should be given a chance to represent themselves at Amiga events such as WoA. I also believe that their involvement made it possible to offer facilities at this years WoA that were not present at previous shows. For example this was the first year that the organisers were able to offer a secure internet ticket ordering system, which was, of course, provided by a usergroup.

I can't wait until next years WoA. Hopefully Amiga will have some great new machines by then, and hopefully the usergroups will help to make next year's show a fantastic event.

Lost Souls Form

No user group near you? Then fill in this form and send it to: User Groups • c/o Amiga Format • 30 Monmouth Street • Bath • BA1 2BW.

Name ....
Telephone ....
Email ....
Address ....
....
Postcode* ....

***You must fill in your postcode as this is used to calculate how far from other Lost Souls you are.**

afb

Amiga Format's mailing list is getting more active all the time. Over 700 people are now on it. **Why aren't you?**

This issue's foray into the world of the Internet mailing list for *Amiga Format* brings the shocking news that people really aren't all that keen on the cinema They prefer to keep their complexions sallow by staying indoors looking at a small screen, instead of going out and staying indoors looking at a large screen, with some people not having been to the flicks since *The Jazz Singer*, starring Al Jolson!

In addition to such frivolity, there has been discussion of what TLAs, abbreviations and acronyms stand for in the computing world, how to improve your connection speed online and lots of talk about fibre channel devices and the moon landings.

Because of someone complaining in these very pages (see Mailbag), I now put it to you that to get the most from the delights of afb, you'll need to accept the cookies that eGroups sends out, but other than that the service seems to be running fairly well.

Remember that you don't actually have to use the afb website at all, limiting your exposure to the little digital biscuits, but if you don't then you can't make use of the many additional features like the calendar, opinion polls, reviews databases and much more that's available on the website.

The amount of messages daily has settled to no more than 150, with many offering information not available anywhere else in the Amiga market, so to get the latest technical info and support from the many bright people on the list, sign up to the afb now.

GETTING ON AFB:

You can subscribe to the afb by going to the following website and signing up: http://www.egroups.com/group/afb/

If you just want news on when the next issue of *Amiga Format* will be out, we offer that at: http://www.egroups.com/group/afb-announce/

It's worth joining both lists since they each offer unique things and the announce list usually only has one email every four weeks.



Fax-Back

The fax-back service is growing this issue, but we still want to know what you want to see here. Whether it's tutorials, reviews or features from recent issues or older ones, we're ready to include what you want to see, so just get in touch and give us the details of what you want (feature name, issue number, page numbers) and we'll put it on the list

HOW TO GET IT:

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Vulcanology	(1 page)	AF123	005
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AF 128 – OCT 1999

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If you have a feature idea, a long term test, a reader request or you want to be in the Amiga Angels list, send an email to ben.vost@futurenet.co.uk, with "Features", "Reader Review", "Reader Request" or "Amiga Angels" in the subject line accordingly. If you don't have email, a letter to the *AF* address with the same subject headings is also fine.

If you want to speak to us about a technical problem, we have a reader call day on Tuesdays. Call us on (01225) 442244 (10am–1pm, 2pm–5pm only). We're sorry, but we can't give games tips over the phone.

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Next Issue

We've jiggled and juggled and found a way to give you an extra seven brilliant pages of sheer editorial quality and it starts next issue!

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November issue on sale Thursday 23rd September

The contents of future issues may be subject to change – no guarantee is implied or intended.

new product

new amiga OS3.5 upgrade

Power Computing is the Official Distributor of the new OS3.5. We are able to offer a special discount for 3.1 ROM chips when purchased with OS3.5. Below are some of the features of Amiga OS3.5. Available in August. WARNING - You must have OS 3.1 ROMs and software to be able to upgrade to OS 3.5

available august £34.95



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PowerMovie CD-ROM **£34.95 plus p&p** Business Licence **£TBA**



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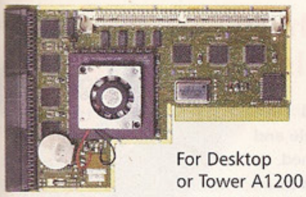
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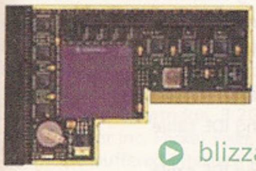
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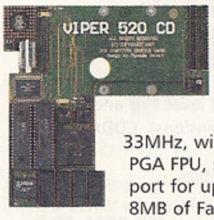
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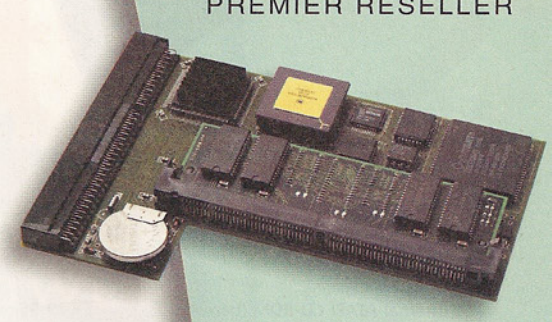
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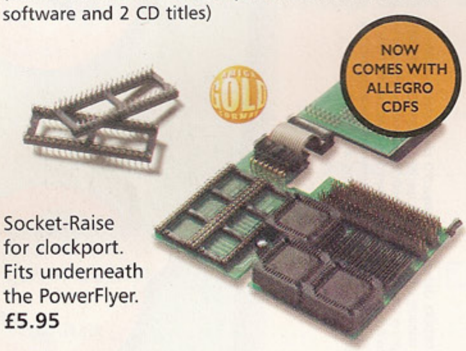
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On the A4000 two devices canbe attached to a standard IDE controller, and another four to the A4000 Power Flyer. More than one A4000 Power Flyer can be installed at the time. After it has been switched on, the Amiga can boot from any of the Hard Drives connected, either to the Power Flyer or to the Standard IDE controller.

A4000 PowerFlyer Gold Edition **£79.95**

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For all Zorro bus Amigas Zorro IDE controller, upto 4 IDE/ATAPI devices, supports LS120, Zip, Syquest and any removable media. Includes special version of IDEfix97. A1200 clock port **£49.95**

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Box of 10 CDR discs	£14.95
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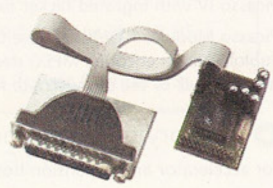
(All the above external bundles include: case, cables. 4-way IDE interface with IDEfix 97 fully registered, MakeCD, 5 x CDR discs and 1 x CDRW Disc)

new allegro cdfs software

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- The first Amiga file system to support UDF (the Video DVD format).
- Access to: ISO 9660 level 1, 2 and 3, Joliet (Windows95/98 long name) level 1, 2 and 3 RockRidge (with Amiga Extensions), CDDA, UDF (Video DVD)
- Supports Amiga protection bits
- Supports Multisession
- Supports SCSI and ATAPI devices (CD-ROM, CD-R, CD-RW, DVD)
- Supports direct audio grabbing from standard audio CDs

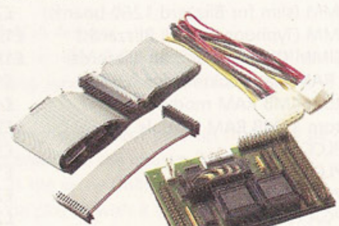
For non-gold edition users Allegro works with EIDE'99 and Powerflyer - available soon

Allegro CDFS only **£10**



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Fast Serial port, upto 460,800 bits per second
32 char. buffer **£35.95**



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To use PC floppy drive as replacement of DF0	£19.95
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3.5" hard drives

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3.5" **13GB*** IDE including IDE cable and install disk	£199

Hard drives bigger than 4GB are supported autom cally by the PowerFlyer or by IDEfix 97 using the patch provided (an updated FileSystem is available on www.amiga.de). Please note that cables include with 3.5" HD have standard 40pin headers. If you need to connect a 3.5" HD directly to the A1200 motherboard, you will need a 44 high density (2.5") to 40 standard (3.5") IDE 'stack cable' £12



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iomega zip

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Zip 100MB internal ATAPI (bare unit only)	£7
Zip cartridge (100MB)	£1
NEW Zip 250MB External SCSI inc. cartridge	£18
NEW Zip cartridge (250MB)	£1



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Squirrel PCMCIA - suitable for any scsi-device £3

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new amiga 1200 motherboards

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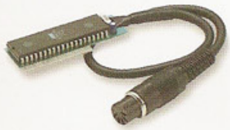




amiga 1200 magic pack

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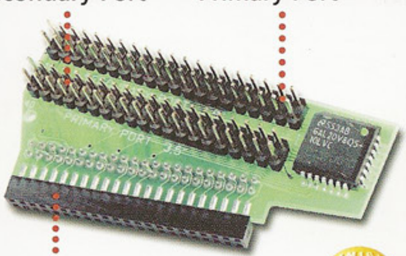
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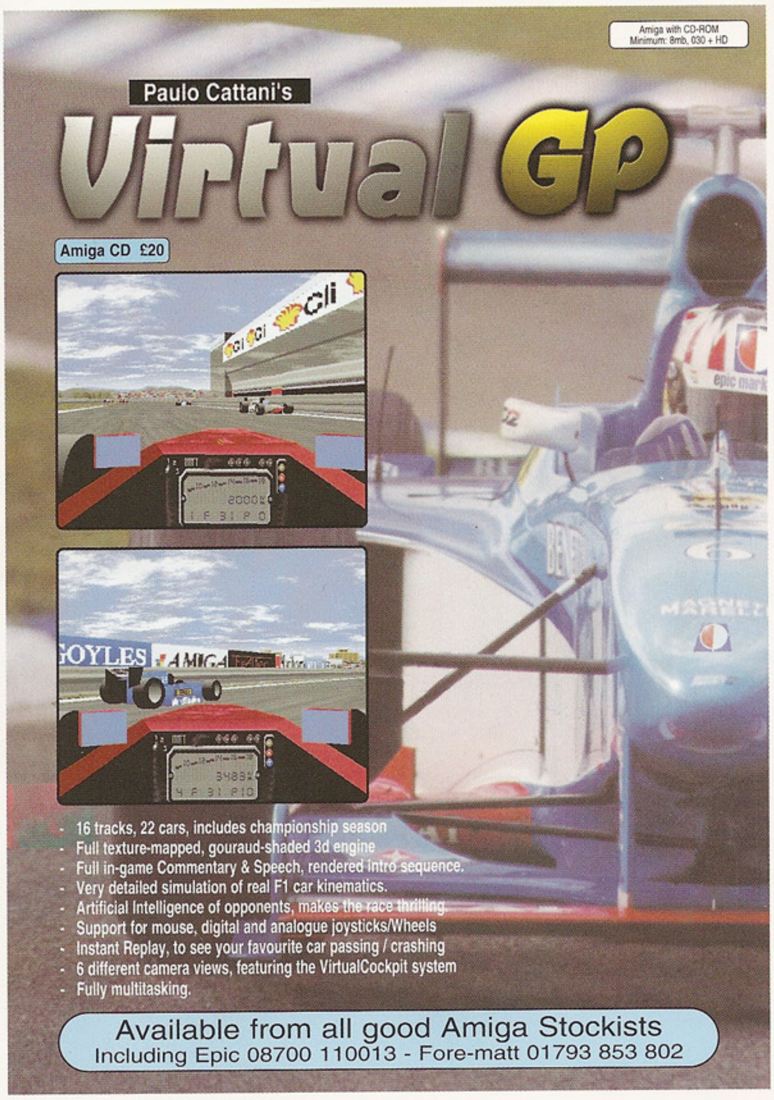


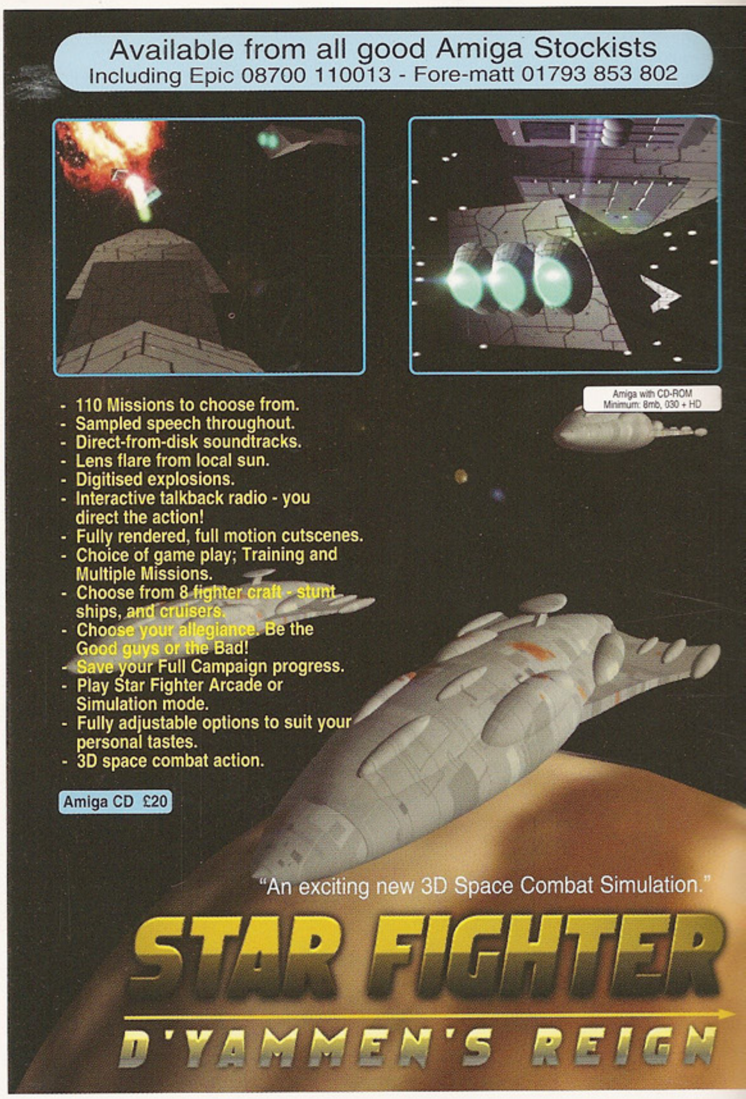
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